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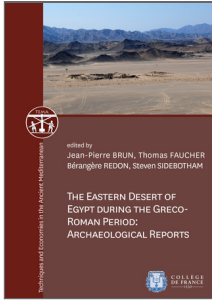
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Jean-Pierre Brun, Thomas Faucher, Bérangère Redon and Steven Sidebotham (dir.)

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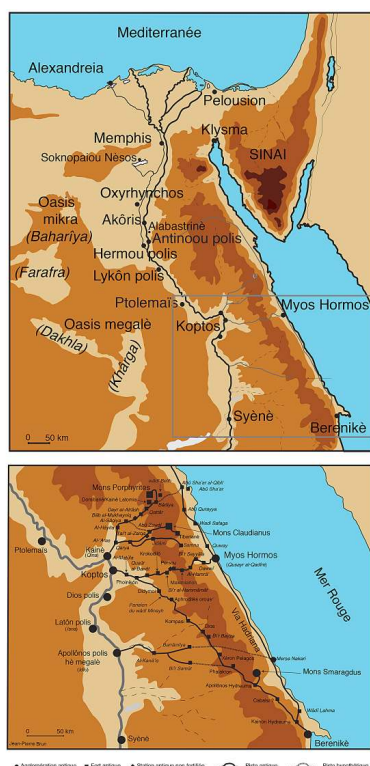
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A Survey of Place-Names in the Egyptian Eastern Desert during the Principate according to the Ostraca and the Inscriptions¹

Hélène Cuvigny

- ¹ The sole purpose of this study is to take stock of the progress made on the toponymy of the Eastern Egyptian Desert through the ostraca found in the excavations of Roman sites in which I took part between 1987 and 2012 (Fig. 1). Ostraca, published and unpublished, to which I will refer, come from the quarry sites of Mons Claudianus and Domitiane/Kaine Latomia (Umm Balad), two forts (*praesidia*) on the road from Koptos to Myos Hormos (Maximianon and Krokodilo), and three *praesidia* on the road from Koptos to Berenike (Didymoi, Dios and Xeron). I occasionally take into account the ostraca of Porphyrites and Myos Hormos.² I also refer to names read on Greek ostraca found recently in Bi'r Samut, a fort along the road from Apollonos Polis (Edfu) to Berenike; Bi'r Samut was founded under Ptolemy II or III, and abandoned under Ptolemy IV.³

Fig. 1



The Eastern Desert in Roman times.

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- 2 These documents, many of which are still unpublished, have yielded a small corpus of new or already known toponyms, but some of the latter had been distorted by the Medieval manuscript tradition. The classical main sources on place-names in the Eastern Desert up to now were:

- the description of the road from Koptos to Berenike by Pliny the Elder, informed by *negotiatores*, in the state in which it was found in AD 50, i.e. before the wells (*hydremata*) were fortified into *praesidia* under Vespasian (*Nat.* 6.102-103);
- the list of stages on this route in three itineraries taken from the manuscript tradition: *Antonine Itinerary* (172-173 ed. Parthey, Pinder), *Peutinger Table*, *Anonymous of Ravenna* (2.7.4 ed. Schnetz).
- Ptolemy's *Geography* for the coast of the Red Sea (4.5.14-15) and the desert (4.5.27).⁴

I. The Administrative districts of the Eastern Desert under the Early Roman Empire

- 3 Our ostraca come from a geographical area, which, in the Roman period, seems to have consisted of two distinct administrative sectors with different purposes. The most southerly is the best defined and the one for which the administrative structure is the most stable and the best known. The Romans called it *Mons Berenicidis* or *Mons Berenices*, which does not mean “Mountain”, but “Desert of Berenike,” the Latin *mons* being, through the Greek ὄρος, the loan translation of an Egyptian word, *ḏw*, which means both desert and mountain.⁵ The Desert of Berenike, named after its most active port, was

crossed by the roads to Myos Hormos and Berenike, both of which departed from the Nile valley at Koptos. They represented a terrestrial segment of one of the main trade routes with the Erythraean world. From Vespasian's time, they were equipped with fortified wells, each headed by a *curator praesidii*. The curators were placed under the direct authority of the prefect of Berenike, who was an imperial procurator. These territorial prefects, whose prosopography has been enriched, often added to their procuratorship a military command, the prefecture of the cavalry wing stationed in Koptos.

- 4 In the ostraca of the aforementioned sites, the road to Myos Hormos seems to mark the northern limit of the Berenike desert. Nevertheless, there is a reference to a prefect of Berenike north of this road: this is the dedication of the *Paneion* of Ophiates, a Roman granite quarry in the Wadi Umm Wikala, a tributary of the Wadi Samna (*I.Pan* 51);⁶ it dates from year 40 of Augustus' reign (AD 11) and specifies the name of the prefect in power, Publius Iuventius Rufus, who combines this function with that of *archimetallarches*, that is to say, commander in chief of mines and quarries. In AD 11, Mons Claudianus and Porphyrites have yet to open, and the mineral resources specifically mentioned (and identified) in the prefect's titulature, Smaragdus and Bazion,⁷ lay south of the Wadi Samna. The inscription, therefore, contains the most northerly mention of a prefect of Berenike: in fact, there is never any mention of this official in the ostraca of the granite and porphyry quarries which the Romans opened later: Porphyrites, Tiberiane, Mons Claudianus, Domitiane/Kaine Latomia. Was this northern area of the Eastern Desert even an administrative entity? It is not clear, as we shall see.
- 5 The exploitation of Mons Claudianus granite and the porphyry of the Porphyrites caused the Romans to reorganize the road system this region, which had been explored before the Romans. Gold deposits had been exploited under the New Kingdom and under the Ptolemies in the area of what would become Mons Claudianus, especially between the current Qena-Safaga road and Myos Hormos road;⁸ in this segment of the Eastern Desert, there are also the amethyst mines of Abu Diyayba, exploited under Ptolemy VI and still active at the beginning of the Empire. Prior to the founding of Kaine (Qena), which served as a terminus for the Claudianus and Porphyrites roads, the mining sites north of Myos Hormos road must have been administered and provisioned from Koptos, and belonged presumably to what was called in Egyptian *ḏw Gbtyw*, the Desert of Koptos. This is the reason why, in my opinion, at the beginning of the Empire, and before the founding of Kaine, the Berenike Desert includes Ophiates, an early Roman granite quarry north of what later appears as the northern border of *Mons Berenicidis*.
- 6 The opening of quarries at Porphyrites and Claudianus caused new logistical problems: it was not a question of taxing and transporting valuable products, but of extracting multi-ton monoliths and transporting them over a hundred kilometres to the Nile: the development of a closer embarkation site was necessary and the area, served by its own road system, had no reason to be commanded by a prefect of Berenike exercising his authority from Koptos. It was no longer about placing "all the mines and quarries of Egypt" under his authority. The ostraca from the four *metalla* that have been excavated, Claudianus, Porphyrites and their satellites (Tiberiane and Domitiane/Kaine Latomia), show that these quarries functioned as a network; the staff and labour force were moved, as needed, from one site to the other. But did this region have a name? A series of ostraca from Mons Claudianus, receipts for advances to the *familia*,⁹ allow us to suggest a hypothesis.

- 7 The *familia* is one of two major categories of labour in the quarries of the area. The other consists of the *pagani*, who were highly qualified stone-carvers and blacksmiths of indigenous origin and free status. Of the two categories, the *familia* is the most enigmatic. This is, most likely, an imperial *familia*, so basically slaves of the emperor, but some of these individuals, who have patronymics or *gentilicia*, cannot have had servile status. Their variegated onomastics often denote an origin outside Egypt. In any case, the *familia* was employed in tasks that demanded more strength than technical knowledge. Some of these *familiares* lived on credit and received advances of food, for which they were made to sign receipts, on which appeared their administrative affiliation to a *numerus* and an *arithmos*. These two words, the first Latin, the second Greek, are synonymous in principle (they mean “number”), but in this case, the *arithmos* represents a subdivision of a *numerus*. In the ostraca from Mons Claudianus, members of the *familia* almost all belong to the *numerus* of Porphyrites and the *arithmos* of Claudianus; but a few, registered in the *arithmos* of Tiberiane, worked in this satellite of Claudianus. Two receipts for advances are exceptional: they are issued by individuals belonging to another *numerus*, that of Alabastron:¹⁰ they were probably registered in the rosters of the alabaster quarries of the Hermopolite, which reminds of the existence at Hermou Polis of an “office of the accountants of Porphyrites and other *metalla*.”¹¹ If we project the administrative structure of the *familia* on the map of the region, it seems that Porphyrites was not only the name of the *metallon* where porphyry was extracted, but referred also to the entire area that was penetrated by the two roads coming from Kaine.
- 8 This region of Porphyrites (which remains an hypothesis) did not have the same administrative structure as the Berenike Desert. It was not under the authority of a territorial prefect who would have been the counterpart of the prefect of Berenike. However, in some late ostraca from Claudianus, there appears the word ἑπαρχος, “prefect.” It is, unfortunately, not clear whether this is a territorial prefect or the officer commanding a military unit, wing or cohort. This mysterious prefect forms a pair with an ἐπίτροπος who is hierarchically lower. This is presumably an ἐπίτροπος τῶν μετάλλων, thus a *procurator metallorum*, who was an imperial freedman. We know the names of two of these prefects. One is called Vibius Alexandros. He receives a pessimistic letter addressed to him by a noncommissioned officer, left in charge of Mons Claudianus with the title of vice-curator and many logistical problems on his hands.¹² The ostrakon contains the draft of two letters from the vice-curator, one to the prefect, and a second one on the same subject addressed to the *procurator metallorum* Tertullus. The letters date from 5th Phamenoth of year 29 of the reign of Commodus, or 1st March AD 189. Vibius Alexandros happens to be known through a papyrus in Leipzig as the *epistrategos* of Heptanomia. In this capacity, he receives a petition dating from the first months of 189. The cumulation of an epistrategy –a procuratorial post specifically Egyptian– with a prefecture is not unique: there are two parallels, but they do not help to decide whether Vibius Alexandros owes his title of prefect to a unit command or to a territorial prefecture, since both cases are represented.
- 9 The name of the other prefect who has authority over Mons Claudianus is Antonius Flavianus. He is the recipient of two letters (drafts) written by the native quarrymen to announce that two columns are ready (with the help of Sarapis) and that they need to be sent steel and coal so that they can complete the third.¹³ This prefect is also assisted by a *procurator*. I was surprised to find Antonius Flavianus on an ostrakon of the Berenike Desert, coming from the fort of Dios. The name of Antonius Flavianus in the dative fills

the first line of the copy of a letter addressed to him by the curator of Dios.¹⁴ The sherd is a fragment of an amphora on which the curator copied the official correspondence, or perhaps just the letters he sent. In the latter case, it would be a *liber litterarum missarum*, but the state of the document does not allow us to be certain. The title of Antonius Flavianus does not appear, unfortunately. All I can say is that, when they are detached to the Berenike Desert, the curators have as their direct hierarchical superior the Prefect of Berenike, and that it is with this official that they exchange correspondence, except when it is of a purely local nature. Is it possible that the two areas I have distinguished in the Eastern Desert were, at a given moment, at the end of the second century or the beginning of the third, under the authority of a single Roman knight? The possibility remains open, but the state of the documentation does not allow us to say more. It may simply be a temporary situation, in which Antonius Flavianus acted as an interim Prefect of Berenike.

II. Analytical classification of Greek and Latin toponyms

- 10 To present the toponyms I will use a system of classification by topographical features. The rules for the formation of toponyms, their syntactic behaviour and thematic typology vary according to these features (this is not unique to Greek): *metalla*; quarries in the narrow sense of extraction sites (λατομῖαι); *praesidia*; wells (ὕδρευματα); roads; Red Sea ports. The names bestowed by today's desert dwellers on the *praesidia* are sometimes those of the wadis in which they stand. The ostraca never mention names of features resorting to physical geography, such as wadis or mountains. Is it a bias of this kind of source, or did the men sent from the Nile valley, contrary to the Beduins of today, not bother to bestow names on such features? For these sedentary people, the desert may have been only a network of human settlements, joined by a limited number of much trodden roads. The same indifference to geography is reflected in the fact that no desert place name refers to geographic directions and is called Northern, Eastern etc. Something.
- 11 The names used in the Eastern Desert in the Imperial period are mainly known to us from Greek texts, more rarely from Latin ones. They were almost all created under the Ptolemies or under the Roman rule, so that some are Latin. Several are in other languages which we cannot always determine, and we do not know if they were assigned by the Romans or if they belong to an earlier toponymic substrate.¹⁵
- 12 For the analytical description of toponyms, I have used Dorion, Poirier 1975 and Löfström, Schabel-Le Corre 2005. In particular, I borrow from the latter the distinction between appellative and proprial, applied both to nouns and adjectives, for example:

Table 1

	noun	adjective
appellative	ὄρμος, λατομία, ὕδρευμα, ἄκανθα, σμάραγδος, φοινικῶν, ἀλαβάρχης, πορφυρίτης, καμπή, πέλαγος	μέλας, μέγας, ξηρός, φαλακρός

proprial	Βερενίκη	Αὔγουστος, Κλαυδιανός
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DISTINCTION BETWEEN APPELLATIVE AND PROPRIAL.

- 13 Another distinction, between generic and specific constituents, is essential in toponomastics. In the place names of the Eastern Desert, the generics are common nouns referring to topographic features: ὁδός, λατομία (and κοπή) μέταλλον, ὄρμος, ὄρος, πρσις ἴδιον, ὕδρευμα.
- 14 Toponymists are divided on the status that should be given to the generics which designate features: do they, or do they not, form part of the toponym? In toponymy, the status of the generic is, indeed, floating. It depends on the feature, on the context of enunciation, and on the specific element: the nature of the latter (locative/descriptive, proprial/appellative), its singular or common character, its formal characteristics, and in particular the number of syllables. In the *Sargasso Sea*, *Sea* is part of the name, but it may be abbreviated to *Sargasso*, which is not the case for the *South China Sea*, where the specific is locative. *Mont Blanc* cannot be reduced to the specific, but *Mount Kilimanjaro* is generally abbreviated to *Kilimanjaro* and *Rocky Mountains* to *Rockies*. For some toponymists, in the phrase the *Town of Manchester*, *Town* is an element of the name, which is less questionable for *Georgetown*.
- 15 In the case of the Eastern Desert, it seemed more effective to consider the generics listed above as being part of the toponym: this makes it possible to understand better the differences in their behaviour and in particular the question of solid compounds (such as *Georgetown*). Greek city names are often open compounds where the generic element πόλις is postpositioned and sometimes elided, whereas the first item, adjective or noun in the genitive, retains its ending: cf. e.g. Ἡρακλέους Πόλις. But the derivative noun Ἡρακλεοπολίτης, which refers to the corresponding nome, is a solid compound. We will see, in the toponymic corpus of the Eastern Desert, that certain generics are never postpositioned, which is the first stage towards the formation of solid compounds.
- 16 Finally, we should note the phenomenon of “transfer” of the generic element, when it refers to another feature than the one which it names: thus, the place names Μέλαν Ὀρος, “Black Mountain,” and Ξηρὸν Πέλαγος, “Dry Sea,” do not refer to a mountain or to a plain, but to *praesidia*.

III. *Metalla*

- 17 In Roman Egypt, μέταλλον signifies a geographical and administrative entity including extraction sites (λατομῖαι) and all the necessary facilities for the work and daily life of the workers, military and administrative staff (dwelling places, offices, wells, stables, granaries, sanctuaries, forges, baths, etc.). When *metallon* designates one of these entities, it is, in the ostraca from Mons Claudianus, in the singular: ἐν μετᾱλλῳ Κλαυδιανῶ, μέταλλον Τιβεριανόν,¹⁶ ἐν μετᾱλλ(ῳ) Πορφ[υ]ρίτ(ου),¹⁷ ἀπὸ μετᾱλλου Ἀλαβαστρίνης.¹⁸ In the papyri, however, this generic is usually in the plural, even when referring to a specific *metallon*: τοῖς Πορφυρετικοῖς καὶ Κλαυδιανοῖς μετᾱλλοῖς (*P.Oxy.* XLV 3243, 14 [AD 214/215]), τῶν κ[α]τ[α] τὴν Ἀλαβαστρίνην μετᾱλ[λων] (*P.Sakaon* 24, 2-3 [AD 325]). But, in general, μέταλλον is omitted.

- 18 The distinction between μέταλλον and λατομία is not always clear-cut: the μέταλλον Τιβεριανόν quoted above is alternatively designated as Τιβεριανή; the *metallon* of Umm Balad is called Καινή Λατομία and, not far from there, is Γερμανική Λατομία. The gender of the specifics Δομιτιανή and Τιβεριανή shows that the implicit generic is λατομία and one observes that if the dedication of Publius Agathopous in Ophiates evokes πάντων τῶν μετάλλων τῆς Αἰγύπτου (*I.Pan* 51 [AD 11]), the parallel inscription that he made at Wadi al-Hammamat seven years later gives λατόμων πάντων τῆς Αἰγύπτου (*I.Ko.Ko.* 41), where the abnormal phrase λατόμων πάντων is considered by Dittenberger, correctly in my view, as an error for λατομιῶν πασῶν.

Table 2

Imperial reference	name of material	descriptive	anthropophore?	uncertain
Γερμανική Λατομία Δομιτιανή Κλαυδιανόν Τιβεριανή	Βάζιον Μαργαρίτης Ὀφιάτης Πορφυρίτης Σμάραγδος	Καινὴ Λατομία	Ἀλαβάργης Πέρεου ¹⁹	Ταμόστυμις ²⁰

Names of *metalla* in the Eastern Desert: semantic classification.

1. A ghost: the complex toponym “Mons Porphyrites”

- 19 The familiar names of Mons Claudianus and Mons Porphyrites are in fact poorly documented. For Mons Claudianus, there is only one example: the dedication in Latin, on an altar at *Mons Claudianus* by a centurion appointed directly by the emperor to be in charge of the *metallon*.²¹ The Greek equivalent, which would be τὸ Κλαυδιανὸν Ὄρος, is not attested. The neuter adjectival noun Κλαυδιανόν is normally used alone, sometimes preceded by the article; in the rare cases where the generic, normally implicit, is expressed, it is μέταλλον. Thus, in *O.Claud.* IV 853, a letter addressed collectively to Probus, *procurator metallorum*, the quarrymen working in the *metallon* of Claudianus call themselves ἐργαζομένων ἐν μετάλλῳ Κλαυδιανοῦ (l. Κλαυδιανῶ²²). Exceptionally, the generic πραικίδιον replaces μέταλλον: when, probably from the time of Antoninus Pius onwards,²³ the commander of Mons Claudianus on site is no more a centurion, but a curator, his title is in most cases κουράτωρ Κλαυδιανοῦ, seven times κουράτωρ μετάλλου Κλαυδιανοῦ, and only twice κουράτωρ πραικιδίου Κλαυδιανοῦ.²⁴
- 20 On the other hand, the Latin phrase *Mons Porphyrites* is not attested in any ancient sources. In papyrus documents, what we commonly call Mons Porphyrites is simply called “the Porphyrites,” ὁ Πορφυρίτης (remember that ὁ πορφυρίτης is a masculine noun, meaning “porphyry”: we shall return to the toponymic use of names of materials). It is the same in the only Latin inscription that mentions it, despite its solemn character. It adorned the facade of the residence, situated at Hermou Polis, of the accountants of the mines and quarries: *hosp(itium) tabula(riorum) Porphy(ita)e et aliorum metallorum*.²⁵ The complex toponym Mons Porphyrites has obviously been created in modern times, either from Latin translations of Ptolemy’s *Geography*, dating from the Renaissance, or by

analogy with *Mons Claudianus* (toponym regularly formed as: generic noun + proprial adjective as specific element). As for the matching Greek Πορφυρίτης Ὀρος, which is in the list of Greek place names compiled by Redard,²⁶ this is also not attested, at least not in the documentary sources (papyri and inscriptions). No wonder, since it contravenes the rules of the composition of complex toponyms in Greek: the specific element, if a noun (common as well as proper), is in the genitive. See Μυδὸς Ὀρμος,²⁷ Απόλλωνος Ὑδρευμα, Ἡρακλέους Πόλις. In Greek as in Latin, complex toponyms never consist of two nouns of which one is in apposition to the other. But, what can we say about two passages, by Ptolemy and Palladius, where Πορφυρίτης is used with Ὀρος?

- 21 At first, it should be observed that the phrase *Πορφυρίτης Ὀρος would be all the more surprising in Greek as the two nouns are of different genders: a phrase indicating that ὁ Πορφυρίτης is to be understood as the mountain, not the stone, should be ὁ Πορφυρίτης τὸ ὄρος (“the Porphyrites mountain”). Ptolemy’s *Geography*, as it came to us, more or less respects this rule in constructed sentences or after a preposition, not –at least in appearance– in the table of ground coordinates. For example: ὁ Παρνασσὸς ὄρος, but παρὰ τὸν Καρπάτην τὸ ὄρος ... ὁ μὲν Αἴμιος τὸ ὄρος κεῖται. In fact, ὁ Παρνασσὸς ὄρος is not a phrase, but ὄρος is only a gloss directed to the person who is drawing the map. Therefore, ὁ Παρνασσὸς ὄρος is to be understood, not as “Mount Parnassus” but as “The Parnassus (mountain).” The same reasoning applies to Ptolemy’s *Geography* 4.5.15, C μάρμαδος ὄρος [coordinates], which should be translated “Emerald (mountain).” Coined by modern scholars, the toponym “Mons Smaragdus” is an incorrect construction.²⁸ Πορφυρίτης and Cμάρμαδος are simple toponyms. In the phrase ὁ Πορφυρίτης τὸ ὄρος, ὄρος is just an apposition, not the generic element of a complex toponym.

- 22 Here is the passage, which is not necessarily free of corruption, where Ptolemy mentions the Porphyrites (*Geogr.* 4.5.27).

τὴν δὲ παρὰ τὸν Ἀραβικὸν κόλπον ὅλην παράλιον κατέχουσιν Ἀραβηγύπτιοι
ἰχθυοφάγοι, ἐν οἷς ὀρεῖναι ῥάχεις
ἢ τε τοῦ Τρωϊκοῦ λίθου ὄρους (coordinates)
καὶ ἢ τοῦ ἀλαβαστηνοῦ ὄρους (coordinates)
καὶ ἢ τοῦ πορφυρίτου ὄρους (coordinates)
καὶ ἢ τοῦ μέλανος λίθου ὄρους (coordinates)
καὶ ἢ τοῦ βακανίτου λίθου ὄρους (coordinates)
“The entire coastline along the Arabian Gulf is inhabited by Arabegyptian fish-eaters, in whose territory are mountainous massifs: the massif of the mountain of Trojan stone (...); the one of the mountain of alabaster (...); the one of the mountain of porphyry (...); the one of the mountain of black stone (...); the one of the mountain of bekhen stone (...).”

- 23 The other lines, particularly those where the word λίθος appears, show that πορφυρίτου is here the name of the material, not the specific element of a complex toponym of which the nominative would be ὁ Πορφυρίτης Ὀρος; πορφυρίτου is a genitive of material qualifying τοῦ ὄρους. So we translate this line: “the (mountain range [ῥάχis]) of the porphyry mountain.”
- 24 In Palladius, however, it is difficult to deny the existence of an abnormal phrase of which the nominative would be ὁ Πορφυρίτης ὄρος: ὅς τὰ μὲν πρῶτα ἔξω πάσης Αἰγύπτου καὶ Θηβαΐδος ἐν τῷ Πορφυρίτῃ ὄρει μόνος ἀναχωρήσας κτλ. (*Dialogus de vita Joannis Chrysostomi*, ed. Sources Chrétiennes 341, XVII 82). Nevertheless, this formulation is

incorrect. Several explanations can be proposed, among which it is difficult to make a choice:

- (1) The text is corrupt: one should restore ἐν τῷ Πορφυρίτῃ <τῷ> ὄρει.
- (2) ὄρει is a gloss aiming at disambiguating Πορφυρίτῃ, but it has migrated into the text.
- (3) As a neuter and masculine item has the same form in the dative, it was perhaps less necessary to apply the rule ὁ Ὀλυμπος τὸ ὄρος.
- (4) Πορφυρίτης is clearly treated as an adjective. This adjectival use is only attested in Greek in an inscription from Smyrna, which lists: κείονας εἰς τὸ ἀλειπτήριον Συνναδίου οὐβ', Νουμειδικὸς κ', πορφυρείτας ζ' (IGRR IV 1431 = IK 24/1, 697 [124-138^B], lines 40-42). But at least this masculine word qualifies a masculine noun, which is not the case with Palladius. I also noted an example in Latin, where the noun (if the reconstruction *I]agonam* is correct) is feminine:²⁹ *I]agonam/porphyriten/cum basi d(e) s(uo) d(edit)* (CIL XIII 4319). In documents from Egypt, πορφυρίτης is never used as an adjective. The adjective derived from it is πορφυριτικός ("in porphyry" or "relating to Porphyrites").

2. Toponyms from materials. A pearl fishery in the Red Sea

- 25 The Greek word πορφυρίτης was created one day in July AD 18 from the base πορφύρα (i.e. the purple dye which comes from two species of *Murex*) and the suffix -ίτης often used, from the Hellenistic period onwards, for the formation, among other things, of masculine names of stones.³⁰ Gaius Cominius Leugas, a prospector who roamed the Eastern Desert in the reign of Tiberius, had just discovered this purple coloured rock, as well as several others, and as a thanksgiving he dedicated a chapel on-site to Pan and Sarapis (AE 1995, 1615).
- 26 When the massif began to be exploited, becoming a *metallon*, ὁ πορφυρίτης was used as a place name. One can observe at this time the same semantic shift in meaning, from material to place name, in the dedication of a *Paneion* situated in another *metallon*, in Wadi Umm Wikala (I.Pan 51 [AD 11]). This inscription, seven years prior to the discovery of Porphyrites, offers a series of placenames drawn from materials which has not been unanimously recognized as such: ἐπὶ ἐξὶ Ποπλίου Ἰουεντίου Ῥούφου χιλιάρχου τῆς τερτιανῆς λεγεῶνος καὶ ἐπαρχοῦ Βερνίκης καὶ ἀρχιμεταλλάρχου τῆς ζμαράγδου καὶ βαζίου καὶ μαργαρίτου καὶ πάντων τῶν μετάλλων τῆς Αἰγύπτου, ἀνέθηκε ἐν τῷ Ὀφιάτῃ ἱερὸν Πανὶ θεῷ μεγίστῳ (l. 2-12). Ὀφιάτῃ presents itself clearly as the name of the place and it is, as in the case of Porphyrites, a direct borrowing from the extracted material. Indeed, ὀφιάτης is a dialect form of the stone-name ὀφίτης,³¹ mentioned by Pliny (Nat. 36.55): Pliny explains the difference between *Augusteum* and *Tibereum*, discovered in Egypt under Augustus and Tiberius, and ophite, the source of which he does not indicate, but it is likely the "Theban ophite" coloured with small flecks, evoked by Lucan: *parvis tinctus maculis Thebenus ophites* (*Pharsalia* 9.714). The fact that the words ζμαράγδου καὶ βαζίου καὶ μαργαρίτου are syntactically on the same level as πάντων τῶν μετάλλων τῆς Αἰγύπτου shows that these nouns are used as toponyms; so they should be provided with an uppercase:³² ἀρχιμεταλλάρχου τῆς Ζμαράγδου καὶ Βαζίου καὶ Μαργαρίτου καὶ πάντων τῶν μετάλλων τῆς Αἰγύπτου, "chief director of the Emerald, the Topaz, the Pearl and all the mineral resources in Egypt." The same enumeration appears seven years later, in another inscription made by the same dedicant, Agathopous, freedman of the prefect Iuventius Rufus, engraved on a *naos* in the stone quarries of *bekhen* in Wadi al-Hammamat (I.Ko.Ko. 41 [AD 18]).

- 27 While Smaragdus³³ and Bazion (St John's Island, where topaz was mined)³⁴ have been identified, the location of Margarites is unknown. I agree with Dittenberger, who believes it to be somewhere in the Red Sea where conditions are favourable to the biology of pearl oysters.³⁵ They are, in this region, *Pinctada radiata* and *Pinctada margaritifera*. According to G. Ranson, *Pinctada radiata* thrives in the tropics and a little beyond, in areas where freshwater inflows mitigate salinity.³⁶ It would be plausible that the Romans had imposed an institutional framework on a fishery traditionally practised by a local population of *Ichthyophagoi*. Likewise, according to Strabo, in the early years of the Principate, the Smaragdus was exploited by Beduins whom he calls Ἀραβες,³⁷ as it will be again in Late Antiquity by the Blemmyes.³⁸
- 28 If the pearls of the Indian Ocean and the Persian Gulf (especially those of Tylos, now Bahrain)³⁹ are mentioned by ancient authors (but after the conquests of Alexander), the two dedications made by P. Iuventius Agathopous are the only ancient testimony to the possible presence of a pearl fishery in the Red Sea. Neither Pliny nor the *Periplus Maris Erythraei* say anything about it; and yet, the latter mentions the Persian Gulf fisheries, though outside the route described.⁴⁰ We cannot exclude the possibility that the Margarites, operated by the State in the early years of the province, quickly found itself competing with foreign pearls, so that it would not have been considered worth the trouble to organise exploitation when Indian pearls and those from the Persian Gulf were flooding the market. But this operation may simply have left no written record other than the two early inscriptions of Agathopous, for shells of *Pinctada radiata* and *Pinctada margaritifera* were found in the excavations at Myos Hormos and Berenike, and the locals obviously liked to rework the shell.⁴¹ One would expect, however, in the case of a fishery, large shell dumps⁴² –unless of course the fishermen threw them back into the sea.⁴³ Such dumps do exist in the lagoon of Berenike, but local constraints (minefields) have not allowed archaeologists to go and look at the composition.⁴⁴
- 29 The traditional interpretation of the name Margarites however has been challenged by Pierre Schneider:⁴⁵ μαργαρίτης, in the inscriptions of Agathopous might not be a pearl, but the gem called χερσαῖος μάργαρος/μαργαρίτης by Aelianus (*De Natura Animalium* 15.8.30) and by Origen (*Commentarium in Evangelium Matthaei* 10.7). These two sources place the “land-pearl” in India, a concept notoriously vague and which may include any region connected with Erythraean trade; Aelian curiously states that it has no inherent nature, but is generated by the rock crystal (ἀπογέννημα εἶναι κρυστάλλου, οὐ τοῦ ἐκ τῶν παγετῶν συνισταμένου, ἀλλὰ τοῦ ὀρυκτοῦ). Schneider connects this passage to Plin. *Nat.* 37.23: citing Juba, Pliny reports that *crystallum* is found –among other sources– on the island in the Red Sea which also produces topaz, i.e. St John's Island. For Schneider, μαργαρίτης would, thus, be the Greek name for rock crystal extracted, according to Juba, from St. John's Island and a nearby island called *Necron* (= Νεκρῶν).⁴⁶
- 30 A final example of the name of the material used as a toponym (not to designate a *metallon*, but a *latomia*) is found in an archive of ostraca from Porphyrates, dating to late 3rd–4th century. A number of these notes are orders to send bread to various microsites of the *metallon*, among which “the Batrachites” (εἰς τὸν Βατραχείτην). W. Van Rengen⁴⁷ recalls in this respect a passage of Pliny, according to which “Koptos also exports *batrachitai*”; the naturalist distinguishes two types of these frog-coloured minerals.⁴⁸ Is there a confusion with the *batrachites* later attested in Porphyrates?

- 31 While materials (whose names pre-existed the Romans, as *μαράγγος*, *βάζιον*, *μαργαρίτης*, or were invented by them at the time of discovery, as *βατραχίτης*, *όφιότης*, *πορφυρίτης*) became place-names, conversely names of materials are derived from toponyms: the granite of Mons Claudianus was called *marmor Claudianum*,⁴⁹ that of Tiberiane *marmor Tibereum* (Plin. Nat. 36.55).

3. *Metalla* in the area of Umm Balad

- 32 The number of occurrences of toponyms on ostraca is more or less inversely proportional to the distance between the named sites and the place of discovery. In other words, the more occurrences, the closer the site. See Table 4, where all the toponyms found on ostraca from Umm Balad appear, whatever the topographic feature.

A. Δομιτιανή vs Καινή Λατομία⁵⁰

- 33 The Umm Balad ostraca, excavated in 2002 and 2003, revealed several completely new names referring to *metalla*, wells and *praesidia*. Unfortunately, we do not know which sites they correspond to on the ground. There is even a slight uncertainty about the name of the *metallon* of Umm Balad, since two names appear concurrently, Δομιτιανή and Καινή Λατομία. The most likely scenario is that the *metallon* was opened under Domitian between AD 89 and 91⁵¹ with the name Δομιτιανή, which would have been substituted by Καινή Λατομία after the *damnatio memoriae* following the emperor's death (the specific Καινή almost certainly refers to the precedence of Porphyrites). However, analysis of the stratigraphy of the midden made by J.-P. Brun does not fit with this interpretation as neatly as hoped: the name Καινή Λατομία appears already in SU 3, an early layer of the dump; Καινή Λατομία and Δομιτιανή are found concurrently in SU 4. Δομιτιανή, the attestations of which are considerably fewer than those of Καινή Λατομία, also appears in layers with Antonine material: residual material or survival of the name? To solve the problem, J.-P. Brun explains that, on the one hand, the c. eight years of works under Domitian must have left a very thin layer at the bottom of the dump and that, on the other hand, the place name Δομιτιανή could have continued to be used as well, at least locally, despite its official replacement by a bland Καινή Λατομία.

B. Small *metalla* listed in the area of Umm Balad, orphan toponyms

- 34 Besides Porphyrites and Claudianus, which we have treated above, the O.KaLa. mention two other *metalla*, Germanike Latomia and Alabarches. To identify their location we have three possible candidates⁵² which are all equally viable:

(1) The area formed by the two quarries and the workers' village⁵³ located at the bottom of the wadi, access to which was controlled by the *praesidium* of Umm Balad; the distance between the fort and the extraction zone is, meandering along this wadi, c. 1.20 km. Letters mentioning Alabarches suggest, without certainty, that it could be this site; Alabarches would, therefore, be a microtoponym within the *metallon* of Domitiane/Kaine Latomia.

(2) The quarries of blue porphyry at Umm Tuwat (27° 10' 12" N / 33° 14' 25" E).⁵⁴ The Romans extracted, in the first to second centuries, a blue-grey porphyry (*trachyandesite porphyry*)⁵⁵ which has stick-like inclusions reminding of the green porphyry from Sparta (Fig. 2). Umm Tuwat is c. 6 km as the crow flies northwest of Umm Balad (there is no

direct route between the two sites, but we have not had time to check if there were mule tracks). The site comprises no agglomeration;⁵⁶ Bagnall and Harrell only indicate three extraction points (Fig. 3) and two small buildings of 3.5 m² and 5.5 m². There are very few ceramics, but the wide and beautiful stone-free track that leads there suggests that the Romans had ambitions for this site (Fig. 4). It has been suggested that the blue porphyry of Umm Tuwat was the *knekites*, one of the materials listed by Tiberius Cominius Leugas, the discoverer of Porphyrites.⁵⁷ Umm Tuwat porphyry was spotted in the palaces of the Palatine, but objects made of this material are extremely rare; the main one is the right column at the entry of the chapel of St. Zenon at St. Praxedes (fig 5).⁵⁸ Κνηκίτης is derived from κνήκος, “saffron,” *Carthamus tinctorius*, which, used as a dye plant, produces yellow. Indeed, the porphyry of Umm Tuwat has no yellow in it, but if one accepts the idea that the ancients perceived colours more in terms of their light intensity than their hue, *knekites* could mean “pale stone” and, of all the materials extracted in the Eastern Desert, only the porphyry of Umm Tuwat could, according to the authors of this hypothesis, fit that description.

Fig. 2



A porphyry plate from Umm Tuwat polished on one side, found in the midden at Umm Balad.

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Fig. 3



A *latomia* at Umm Tuwat.

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Fig. 4



The track towards Umm Tuwat.

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Fig. 5

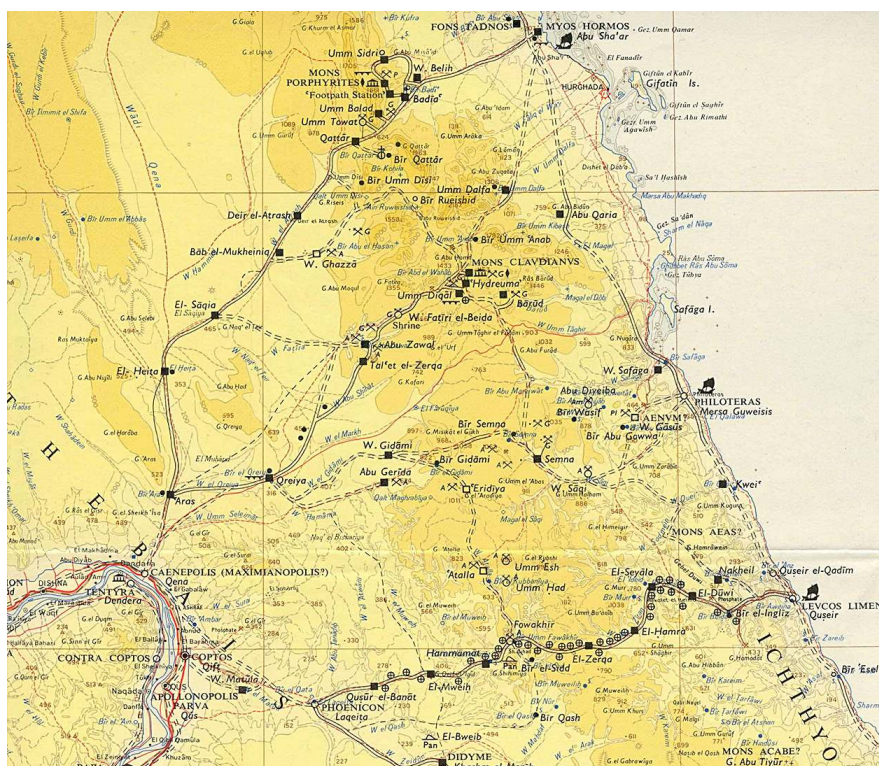


PORPHYRY COLUMN FROM UMM TUWAT IN ZENON'S CHAPEL AT ST. PRAEDES.

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(3) The diorite quarry of Umm Shejilat⁵⁹ which is c. 18 km, almost in a straight line, south of the *praesidium* of Qattar, was quarried during the first/second century AD.⁶⁰ We did not go there, but the satellite image shows access to it from Qattar. The built-up area is not shaped like a *praesidium*. Mons Claudianus is not far away, but the mountainous terrain prevents direct communications between the two sites. Umm Shejilat had to be in the orbit of Porphyrites and perhaps more precisely of Umm Balad. However, caravans carrying provisions must have come from Kaine and left the *hodos Porphyritou* at the small station of Bab al-Mukhaniq, from where Meredith's map shows a road leading to the gold mine of Wadi Ghazza and to an anonymous granite quarry which corresponds, according to its location, to Umm Shejilat (Fig. 6).

Fig. 6



Map of the *Tabula imperii romani*, Sheet *Coptos* published by Meredith 1958.

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- 35 To name these three sites, two toponyms, as we have seen, are available:

36 Γερμανική Λατομεία

The name of this *metallon* appears only in O.KaLa. inv. 765, a receipt issued by a *sklerourgos* to a camel driver for a delivery Ἐν Γερμανικῇ Λατομίᾳ (the delivered object is a load and a half of monthly rations for quarry workers).⁶¹ The document is dated 2nd Phaophi of Domitian's 16th regnal year, or 29th September AD 96 (the news of the Emperor's death, which had occurred on September 18th, had not reached the site yet). Γερμανική refers to the *cognomen ex virtute* Germanicus, to which Domitian was very attached, and shows that the *metallon* had been opened under this emperor, in the same way as Δομιτιανή. The Germanike Quarry should not be very far from Umm Balad, as the camel driver, who had probably loaded his animals at Umm Balad, had brought back the receipt as proof. This could be Umm Tuwat. The fact that two pieces of porphyry from Umm Tuwat were found in the midden at Umm Balad (one was polished, Fig. 2) shows that in any case the two *metalla* worked at the same time, that is to say under Domitian and/or Trajan. Isolated and poorly equipped, Umm Tuwat probably depended for its supplies on Umm Balad.

- 37 Ἀλαβάρχη/Ἀραβάρχη

This name is attested in seven ostraca from Umm Balad, six private letters, which are rather uninformative and an amphoric *titulus* published below (Fig. 7). Only the latter suggests that Alabarches/ Arabarches⁶² must have been a *metallon*. The amphora belonged to the architect Sokrates. Does the place-name refer to an *arabarches*⁶³ or an individual called Arabarches, since this title was used –especially in Thebes and Elephantine– as a personal name?⁶⁴ Since the question of customs duties is probably

irrelevant in this part of the Eastern Desert, I am inclined to favour the second hypothesis, and to relate Arabarches to the anthropophoric names of some *latomiai* at Mons Claudianus. The choice of a personal name may reflect the fact that Arabarches was a small *metallon*. For A. Bülow-Jacobsen, it could be the workers' village at the foot of the quarries of Umm Balad (see § 34 [1]).

O.KaLa. inv. 269 (Fig. 7)

Domitien/Trajan

Umm Balad, phase A – US 2 (3208) 10.5 x 3.5 cm Nile silt clay

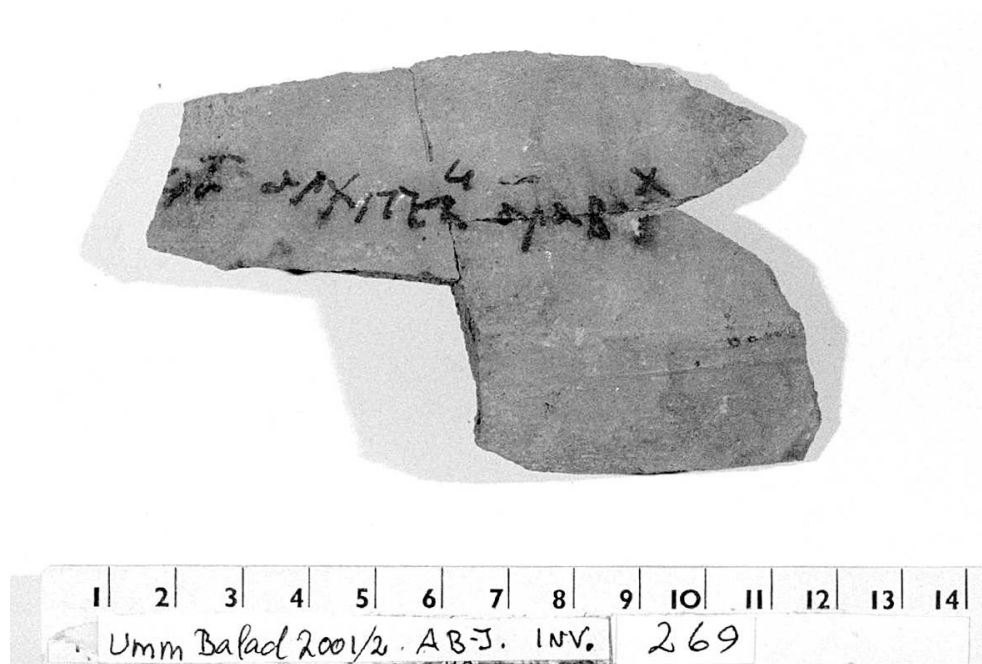
Titulus on amphora AE3.

σωκράτ() ἀρχιτέκ() (τ-) Ἀραβάρχ(ου?)
]. .[

38 *Sokrates, architect at Arabarches.*

1. The absence of a preposition dictates the restoration of the genitive. This is the only case in the ostraca from the *metalla*, where the trade-name ἀρχιτέκτων is determined by a place name.

Fig. 7



O.KALA. INV. 269.

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- 39 Ἀραβάρχης is most often used without an article,⁶⁵ but the paucity of occurrences does not allow us to make it a general rule: in the epistolary ostraca from Umm Balad, Πορφύριτης preceded by a preposition is used interchangeably with and without the article. But πορφύριτης originally is a common noun and, therefore, more likely to take the article, while Ἀραβάρχης, as we have seen, may be an anthroponym.

IV. *Latomiai*: quarry names of Mons Claudianus

- 40 If the ostraca of Porphyrites have only revealed the name of a single quarry, Βατραχίτης,⁶⁶ the Claudianus corpus has yielded a rich harvest of these microtoponyms. I have taken

almost all of them from *O.Claud.* IV. The infrared photos that A. Bülow-Jacobsen took after publication of the book allowed me to make some corrections. In the inventory below, I only quote the instances that allow us to observe the morphological and syntactic behaviour of these names.

- 41 Of the 130 quarries reported by David Peacock, only seven, the names of which are known from the ostraca, were identified through inscriptions found on the spot: Epikomos, Harpocrates, Hieronymus[?], Kochlax, Myrismos, Nikotychai, Philok(.). I indicate, in this case, the number given by David Peacock.⁶⁷

1. Inventory

- 42 Ἀμμων[?] (Antoninus?)
 λατομ(ία) Ἀμμ[ων]oc: *O.Claud.* IV 719, 6 (much restored).
- 43 Ἀνουβι (Trajan)
 This quarry is mentioned once in the opening words of a list of experts in the form Ἀνούβι (*O.Claud.* IV 632, 1). Although both lines of this incipit pose insuperable difficulties in reading and interpretation, I think that this is the dative Ἀνούβι, well-attested in the inscriptions (there are many examples outside Egypt, especially in Delos; in Egypt: *I.Alex.impér.* 124).
- 44 Ἀπι (Trajan)
 Mentioned in the dative Ἀπιδι with other names of quarries and of other features that are allocated water rations in the large organisational chart *O.Claud.* inv. 1538, 2 and 6 (Cuvigny 2005).
- 45 Ἀπόλλων (Trajan)
 Six certain occurrences. Probably a different quarry to Apollon Epikomos, only called Epikomos in the ostraca.
 – Ἀπ[ό]λλωνoc: *O.Claud.* inv. 2853, 5.⁶⁸ In this catalogue of water distribution, quarry names are in the nominative when they are adjectives, and in the genitive when they are theonyms or anthroponyms.
 – λατομία: Ἀπόλλωνo(c): *O.Claud.* IV 634, 2.
 – Ἀπόλλωνι: *O.Claud.* IV 741, 1.
 – εἰς λατομίαν Ἀπόλλων[oc]: *O.Claud.* IV 786, 3.
 – εἰς τὴν λατομίαν τοῦ Ἀ[πόλ]λωνoc: *O.Claud.* IV 819, 4-5.
 – ἰς λατομίαν Ἀπόλ(λωνoc): *O.Claud.* IV 867, 5.
 – [εἰς Ἀπόλ?]λ[ωνoc] λατομίαν: *O.Claud.* IV 816, 1 (Fig. 8). But the *lambda* is strange. Rather Νειλαν]μωoc?

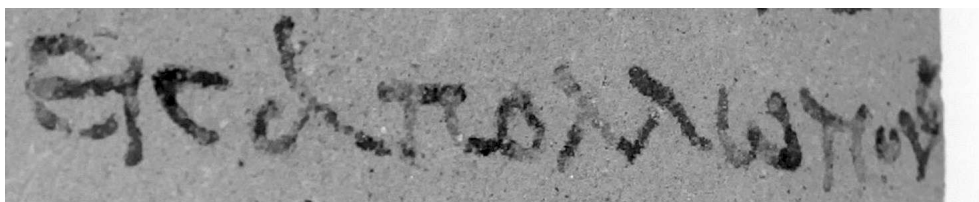
Fig. 8

**O.CLAUD. IV 816, 1 (DETAIL).**

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- 46 In *O.Claud.* IV 866, 4, the infrared image shows that Ἀπολλωνου was corrected by the scribe into Ἀπόλλωνος, a *sigma* having been written in the line space above the *upsilon* (Fig. 9). Given the context, it seems certain that this is a city, not a quarry, and that we can reconstruct this with confidence as ἀπῆλθεν εἰς Ἀπόλλωνο[υ] \c/[πόλι]ν.

Fig. 9

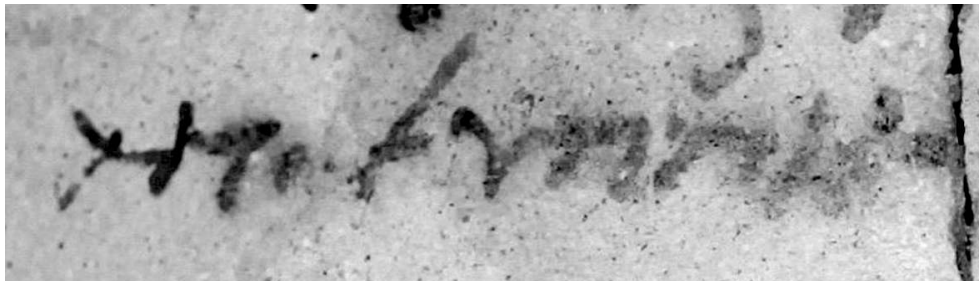
**O.CLAUD. IV 866, 4 (DETAIL).**

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- 47 Ἀρποκράτης (Trajan and Antoninus)
The Harpocrates quarry is marked with a Latin inscription, where its name is preceded by the mark CEP, suggesting it was part of the *caesura* of Epaphroditos⁶⁹ (= Peacock No. 109; cf. Peacock, Maxfield 1992 p. 188 and 220). This *latomia* is attested in three ostraca only:
– [λατ]όμου Ἀρποχράτο[υ]: *O.Claud.* IV 635, 1 (Trajan);
– *Arpochrate*: *O.Claud.* IV 843, 6 (Trajan?);
– λατ(ομία) Ἀρπ[ο]ο[υ] (κράτου): *O.Claud.* IV 841, 6 and 23 (c. 150).
- 48 Αὐγούστη (Trajan)
Αὐγο(ύστη): *O.Claud.* IV 775, 8 and 776, 11.
- 49 Ἀφροδίτη (Trajan)
λατομί[α] Ἀφροδε[ίτης]: *O.Claud.* IV 637, 1-2.
- 50 Βάρβαρος (end of the reign of Hadrian)
λατομ(ία) Βαρβάρου: *O.Claud.* IV 730, 1.
- 51 Διόνυκος (Trajan and Antoninus)
A dozen instances, including:
– Διονύσω: *O.Claud.* IV 699, 15.
– Διονύσου πλάκες: *O.Claud.* IV 844, 3.
– δὸς εἰς τὸν Διόνυκον: *O.Claud.* IV 808.

- 52 The theonym is preceded by the generic in two Antonine texts: λατο(μιά) Διον(ύου) (*O.Claud.* IV 841, 13, where we learn that this quarry is part of the *caesura* of Epaphroditos) and *ex lat(omia) Dionysu* (*O.Claud.* IV 845, 2).
- 53 Διόσκορος
This quarry is mentioned only in *O.Claud.* IV 748, 1, but there is, in my view, no reason to consider this anthroponym as a toponym.
- 54 Ἐπίκωμος (Trajan)
Five examples, the generic being always implicit, e.g. Ἐπικώμῳ (*O.Claud.* IV 776, 3) and possibly δὸς εἰς τὸν Ἐπ[ίκωμον] in *O.Claud.* IV 817, 1 (Ἐπίκ[ω]μον] ed., a misreading due to a misplaced chip). Epikomos should probably be identified with quarry No. 7,⁷⁰ where one can read the inscription Ἀπόλ(λων) Ἐπίκωμος⁷¹ (“Apollo presiding over the festivities”).
- 55 Ἐπιφανής? (c. AD 150)
Only attested in *O.Claud.* IV 841, 8, wherein the restitution λατ(ομιά) Ἐπιφαν[ή]c is possible, but not certain. For the nominative after λατ(ομιά) see *s.n.* Εὐπλοία. This name would be in the category of divine epicleses.
- 56 Εὐπλοία (c. AD 150)
I read λατο(μιά) Εὐπλοία [in *O.Claud.* IV 841, 11 (Fig. 10, Ευπτικ[.] ed.). We cannot exclude Εὐπλοία[c], but it should be noted that the text presents two certain examples of λατομιά followed by a specific in the nominative: λατ(ομιά) Φιλοέραπτις and λατ(ομιά) Κόχλαξ. The quarry-name “Good navigation” is not irrelevant, since the monoliths extracted came down the Nile and across the Mediterranean.

Fig. 10

**O.CLAUD. IV 841, 11 (DETAIL).**

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- 57 Εὐτύχης (Trajan)
Eight occurrences, all in the dative and without the generic. This is the anthroponym Εὐτύχης, gen. -ου, not the adjective εὐτυχής.
- 58 Ζεύς (Trajan)
One example: λατομιά Διός (*O.Claud.* IV 638, 1).
- 59 Ἥρα (Trajan)
The quarry of Hera appears in several listings of quarries in the dative (Ἥρα) and in the genitive Ἥρας (depending on an implied λατομιά) which serves as a header in the list of experts in *O.Claud.* IV 640. Also note the expression ἐκ τῆς Ἥρας (*O.Claud.* IV 743, 4). This quarry is mentioned in the chart inv. 1538, along with another work-site called Κρηπίς(c)

Ἡρακ, perhaps the platform to allow the loading of the blocks extracted from the Hera quarry onto chariots (on *krepides*, see § 104).

60 Ἱερώνυμος (Trajan)

This name from a family of architects appears twice in a quarry name, as the modifier of a generic which is not λατομία, as read in the edition, but Λουτήρ, also known by itself as a quarry name.

– *O.Claud.* IV 710, 3 (Fig. 11): λατομία Ἱερωνύμου ed. → Λουτ(ήρι) Ἱερωνύμου.

– *O.Claud.* IV 779, 2 (Fig. 12): λατομία Ἱερωνύμου ed. → Λουτ(ήρι) Ἱερωνύμου.

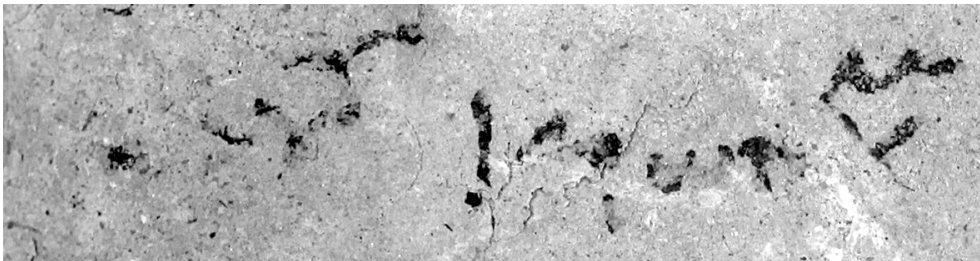
Fig. 11



O.Claud. IV 710, 3 (detail).

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Fig. 12



O.Claud. IV 779, 2 (detail).

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61 To these two instances, one should add the Latin account *O.Claud.* IV 843, where the quarry is simply called *Hieronymi*. It is impossible to establish with certainty whether Λουτήρ, Ἱερώνυμος and Λουτήρ Ἱερωνύμου are three names for one quarry; at least Λουτήρ (§ 67) could be an abbreviation for Λουτήρ Ἱερωνύμου.

62 Hieronymos may be identified with quarry No. 83, north of the cemetery: on one side the letters ιερω are engraved (Peacock, Maxfield 1997, p. 187 et Fig. 6.57 = SEG XLII 1575). This case of an architect eponymous of a quarry is unique. The name of the architect Herakleides appears on a quarry face in quarry No. 129, but preceded by διά.⁷²

63 Καινή Λατομία (Trajan)

The namesake of the *metallon* at Umm Balad, it is attested among other *latomia* names in four related lists of quarry names (*O.Claud.* IV 700 and *comm ad.* 2; 702; 704; 777).

64 Κάνωπος (Trajan)

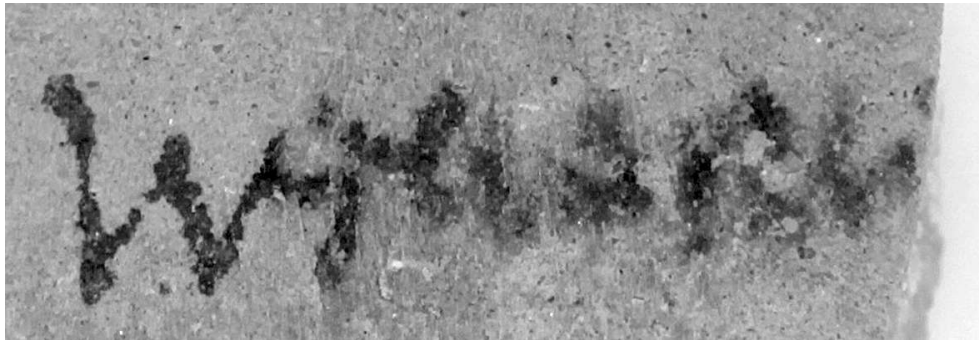
Five examples, including:

– λατομ(ία) Κανόπο:ϙ (O.Claud. IV 641)

– Κανώπου in O.Claud. IV 704 and 779, quarry lists, the names of which are in the dative.

In these lists, anthropophoric quarry names are usually in the dative even if they are known elsewhere as λατομία + anthroponym in the genitive. However, I think we can read Κανώπωϙ (Fig. 13) in the list O.Claud. IV 783, 1 (Κανώπ<ο>υ [ed.]).

Fig. 13



O.Claud. IV 783, 1 (detail).

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65 Κόχλαξ (Antoninus)

O.Claud. IV 841, 63; 64: λατ(ομία:ϙ) Κόχλαξ; O.Claud. IV 842, 5; 6: •Κόχλ[αξ; O.Claud. IV 843, 3 (Trajan?): Cochlax. Κόχλαξ never inflects; this rare and onomatopoeic word means “gravel.” The Kochlax quarry, identified by an inscription with this name, is No. 120 in the inventory of D. Peacock.

66 Λέων (Trajan and c. AD 150)

The quarry is simply called Λέοντι in several lists of quarry names in the dative, but λ:α ϙτ:ϙ(ομία:ϙ) Λέοντος in O.Claud. 841 IV, 40, which is a later text.

67 Λουτήρ (Trajan)

Five ostraca mention this quarry, which seems to take its name from the object, bath or basin, that was being (had been?) extracted.

68 The place name appears in the dative Λουτήρι and in O.Claud. IV 814, preceded by the article (ὁς εἰς τὸν Λουτήρα). It is probably the same quarry as that referred to as Λουτήρ Ἰερωνύμου (§ 60-61), for, in the quarry lists O.Claud. IV 770 and 774, Λουτήρι immediately precedes Μέση, while in two lists pertaining to another series, O.Claud. IV 710 and 779, Μέση immediately precedes Λουτήρι Ἰερωνύμου.

69 Μάρων (Trajan and c. AD 150)

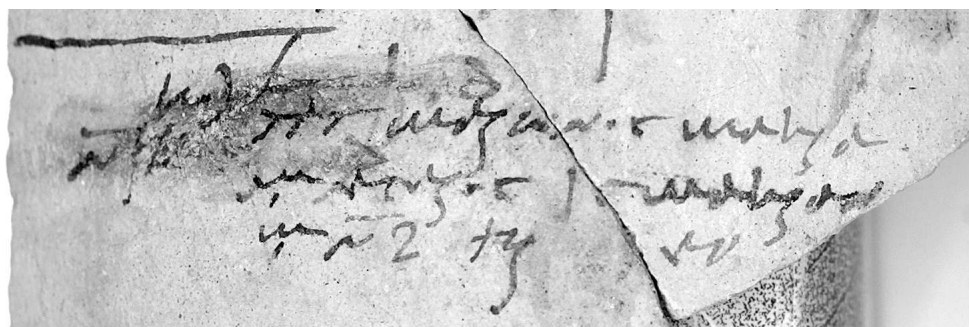
As for the Leon quarry, the anthroponym refers to the quarry itself and not, as it seems, to a person with a relationship to it: many occurrences of Μάρωνι appear in lists of quarry names in the dative, but this feature was forgotten in the time of O.Claud. IV 841, 41, where one has λ:ατ(ομία) Μάρωνος distinct undoubtedly from λατ(ομία) Μάρωνος μακρά on the same ostrakon (l. 31).

70 Μάρωνος μακρά (c. AD 150)

The “long quarry of Maron” is only attested in O.Claud. IV 841, 31. The edition gives the

impression that it belonged to the *caesura* of Epaphroditos, which appears as a header to a text block on line 30. This is curious, given that Maron's quarry is in the *caesura* of Enkolpios according to *O.Claud.* IV 841, 41. However, the infrared image shows that κοπ(ῆ) ⲓ) Ἐπαφροδ(ίτου) on line 30 is intentionally deleted⁷³ (Fig. 14).

Fig. 14



O.Claud. IV 841, 30-33.

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71 Μεγάλη λατομία (Trajan and c. AD 150)

Just as with Καινή, but not Μένη, the generic element λατομία is always expressed when qualified by Μεγάλη (see *O.Claud.* IV 782, 2-3). Two occurrences under Trajan, then in *O.Claud.* 841 IV, 65.

72 Μένη (Trajan and c. AD 150)

Except once, in the opening words of a staff list, *O.Claud.* IV 644 (Μένη ⲓ) λατομία), the “Middle” quarry, frequently mentioned, is referred to simply as Μένη, unlike Καινή or Μεγάλη which are always followed by the generic (e.g. *O.Claud.* IV 812: δὸς εἰς τὴν Μένην κυρτίδας δέκα).

73 The later account *O.Claud.* IV 841, 54 suggests that this important quarry could have been placed under the protection of Isis: λατ(ομ)ία Μένη Εἰσειδι. It is abnormal that the theonym after λατομία is not in the genitive.

74 Μίθρας (Trajan)

Attested only in the incipit of a headcount written in charcoal, *O.Claud.* IV 646: λατομία ⲓ) Μίθρα. Other examples of λατομία + name of god in the genitive suggest the interpretation of Μίθρα as a genitive, not as a dative in apposition.

75 Μυρισμός (Trajan [and Antoninus Pius?])

The four certain examples of the Myrismos quarry (Peacock No. 22) date to Trajan. The quarry could have functioned under Antoninus Pius if we accept the reading *ex lat(omia) Mur[* in the Latin account *O.Claud.* IV 845. The name of this quarry appears in three ostraca abbreviated as Μυρισμ(. It is preceded by the generic in the inscription that we found in the rubble of the quarry, after its destruction by the Zamzam Company in 1989 (Fig. 15). Jean Bingen published the Greek text of the inscription and translated it “The (column) No. 3 of the Myrismos quarry. The one who loves Trajan.”⁷⁴ The epithet Φιλοτραιανός, because it is in the nominative, cannot be a second name of the λατομία, hence Bingen’s idea of linking it to an implied στῦλος (column). Bingen considers that Myrismos, the eponym of the quarry, is “perhaps an imperial slave or a Greek contractor.”

Fig. 15



Column base inscribed on the underside, from the quarry of Myrismos.

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76 Νειλάμμων (Trajan or Hadrian)

This quarry is mentioned in only five headcounts written by the same scribe, who invariably expresses the generic and dissimilates the first μ to ν : λατομία Ν(ε)ιλάνμωνος (O.Claud. IV 734-738). This spelling can be explained as a fault of hypercorrection and, perhaps, through the novelty of this polytheophoric personal name, which does not spread in the papyri before the end of the second century AD (the oldest example, P.Oxy. III 477, is dated to AD 132/133). We should not completely rule out the existence of a Neilammon god, perhaps attested in the temple inventory P.Erl. 21, 32 (prov. Unknown, c. AD 195): Ν]ειλάμμων θεοῦ μ(), that one might consider turning into Ν]ειλάμμων(ο c) θεοῦ μ(εγίctου).

77 Νερωνιανή (Trajan)

Two instances, λατομία always being implied (O.Claud. IV 776, 16; 777, 2). There is also the beginning of this toponym, but erased, in O.Claud. IV 841, 41, of c. AD 150.

78 Νικοτύχαι⁷⁵ (Trajan)

The name of this quarry is inscribed *scriptio plena* on a granite bed that was cleared of overburden, but which was not worked (Fig. 16, 17). We probably recognize it in two ostraca: λατ]ομ(ί)α Νικοτ(ύ)χ(ων) (O.Claud. IV 651, 1) and Νικ]οτυχ() (O.Claud. IV 747, 6, Μάρ]ονα ed., see Fig. 18). The polytheophoric name Νικοτύχη otherwise unknown in Egypt, is attested as an anthroponym (with a masculine counterpart Νικότυχος).

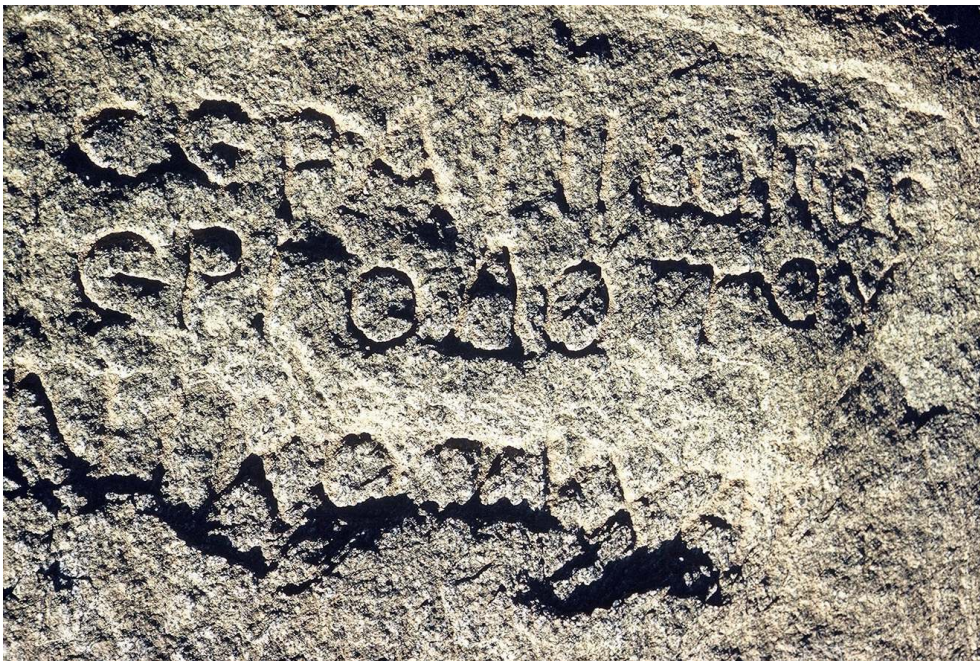
Fig. 16



Nikotychai quarry, remained untapped.

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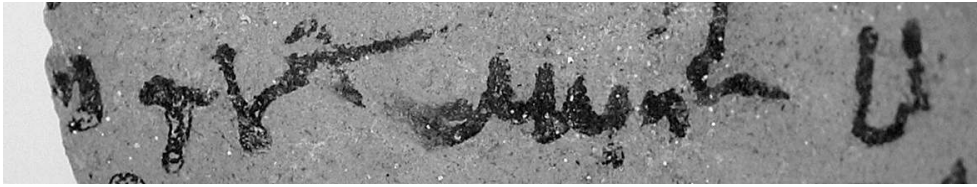
Fig. 17



THE SIGNPOST OF NIKOTYCHAI QUARRY, WITH THE NAME OF THE FOREMAN.

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Fig. 18



O.Claud. IV 747 6: [Νικ]οτυχ() ἀκικκ(λάριοι) β.

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Πλωτίνα (Hadrian?)

- 79 This name appears only in *O.Claud.* IV 739, a note assigning 16 men “to Plotina’s column,” *ετύλω Πλωτίνα[ε?]* (Fig. 19). Does that mean they were sent to work specifically on a column in a quarry called Plotina or was this quarry, as for *Λουτήρ*, named after the object that was extracted, as would happen with a column which would itself have a name, like the column *Φιλοτραϊανός* in Myrismos quarry? The parallel offered by *O.Claud.* IV 657, 1-2 (§ 95, *s.n.* *Χρημοσάραπις*) suggests that we should rather consider Plotina as the name of the quarry.

Fig. 19



O.Claud. IV 739, 1.

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- 80 *Πορφυρίτης* (Trajan)
This name appears in two lists among quarry names (*O.Claud.* IV 705 and 706) and in a delivery order belonging to a series of notes about sending quarry equipment (*O.Claud.* I 17, cf. *O.Claud.* IV, p 135). It must, therefore, probably refer to a *λατομία* which is the namesake of the *metallon*. The restitution of this quarry name in the Antonine ostraca *O.Claud.* IV 841, 49 and 842, 4 is very hazardous.
- 81 *Ῥώμη* (Trajan)
It more likely refers to the goddess Roma than to the city. *Ῥώμη* is never accompanied by the generic *λατομία*. Sometimes, it is preceded by the article after a preposition *ἐν τῇ Ῥώμῃ* (*O.Claud.* IV 652), *δδς εἰς τὴν Ῥώμην* (*O.Claud.* IV 804; 813). In *O.Claud.* IV 742, 1, one should probably read, after *ἰς Ῥώμην*, *οὐτίγ' ἄλλ' ἑ* (*Ουτίγ' ἄλλ' ἑ* ed.): see Fig. 20.

Fig. 20



O.Claud. IV 742, 1.

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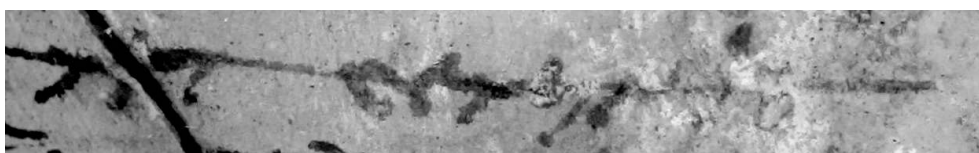
82 Cελήνη (c. AD 150)

This quarry only appears in two ostraca where its name had been misread:

– [[λατ(ομία) Cελήνη:~]] (Cερ~ηνου ed.): *O.Claud.* IV 841, 51 (Fig. 21).

– Cελήν[η(c?)] (Cελην[ου ed.): *O.Claud.* IV 842, 2.

Fig. 21



O.Claud. IV 841, 51.

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83 Cέραπις? (c. AD 150)

λατ(ομία:) Cερα[~, *O.Claud.* IV 841, 24: single and uncertain example.

84 Cώ~ζουσα (Trajan)

Evidenced only in a Latin fragment (*ex latomia Sozusa*, *O.Claud.* IV 846, 3). This epiclesis is not common in Egypt: we only know a cult of Isis Sozousa at Ekregma in northern Sinai (*P.Oxy.* XI 1380, 76), and an Arsinoe Sozousa Street in Alexandria.

85 Τραιανή (Trajan)

Common, this name is always used alone except in *O.Claud.* IV 653 1-2 (λατομίαις Τραϊανῆς).

86 Φιλάμμων (Trajan)

Philammon appears, every time more or less abbreviated and without the generic, in three lists of quarry names in the dative (*O.Claud.* IV 775, 10; 776, 7; 777, 3).

87 W. Swinnen has demonstrated that Philammon was an old Greek anthroponym, probably a hypocoristic of φιλάμενος.⁷⁶ Widespread in Cyrenaica because of an homophony with the Libyan names in -αμ(μ)ων and with the name of the local god Ammon, it is also well attested first in Ptolemaic, then in Roman Egypt, where it benefitted from the second century CE fashion for anthroponyms ending in -άμμων. Swinnen thinks that the popular etymology associating Φιλάμμων with the theonym Ἄμμων is late, since genealogies of the type Philammon son of Ammonios do not occur before the end of the first century BC (*BGU* IV 1163 3 [16-13 BC]; *SEG* XXVI 1839, col B, 13 [first century BC-beginning of the first century CE]); secondly, Fr. Dunand, as Swinnen reminds us, has established that there are no theophoric names in -άμμων in the Ptolemaic era.

88 How did popular etymology understand the name Philammon? We know that in Greek compounds, the element φιλο- has an active sense ("who loves") when in first position,

but passive (“beloved”) in second; however, this rule does not apply strictly to anthroponyms (Schwyzer 1939 I p. 635: Agelaos, “leading the people,” has the same meaning as Laagos). This latter consideration allows us to avoid the aporia of a pagan name meaning “who loves Ammon,” the concept of loving a god being deemed foreign to pagan thought: so, Philotheos, so widespread in the Christian period where it means “loving God” would be in pagan times (where it is also rare), the equivalent of Theophilos (“beloved by the God”). But how should the name Φιλάμμων be understood when bestowed on a quarry in the time of Trajan? The meaning “Beloved of Ammon” would be satisfactory for a quarry, presented as being under the protection of the god, but the absence of the equivalent *Ἀμμωνόφιλος makes this hypothesis weak.

- 89 We can compare Φιλάμμων to another similar quarry name, Φιλοράπις, which has a clear etymology. It was originally a title that falls into the category of loyalist epithets from the imperial era as in φιλο- + name of a distinguished person (e.g. φιλόκαισαρ). In this case, there is no doubt that φιλο- has an active sense. But is it the same when the second element is a theonym? M. Malaise, rallying to the position of Swinnen considers that Φιλοράπις means: “Who is beloved by Serapis.”⁷⁷ But would the element φιλο- have two different meanings when, in AD 193, the *archiereus* Ulpius Serenianus tacked onto his name the epithets φιλοκόμοδος καὶ φιλοράπις?⁷⁸ I do not think so. Similarly, in Ephesus Vibius Salutaris, an official of equestrian rank who had been generous with the temple of Artemis, is honoured with the title *philartemis* which is added to that of *philocaesar*.⁷⁹ In an inscription from Didyma, the *philodionysoi* who question the oracle are an association of “Friends of Dionysus.”⁸⁰ Conversely, would these compounds φιλο- + theonym have taken a passive sense when employed as anthroponyms, which seems to have been attested (except for Φιλοράπις) only in Egypt (where we also encounter the rare Φιλαπόλλων, Φιλέρμης, Φιλοδιόσκορος and more frequently Φιλαντίνοος)? Swinnen considers Φιλαπόλλων and Φιλέρμης to be Hellenized counterparts of Μαίευρις and Μαίθωυτ / Μαίθώτης, which he interprets as transposing *mry* + divine name, so “Beloved of Horus / Thoth.” But this etymology, proposed by Vergote, is not authoritative; it has not been retained in the *Demotisches Namenbuch*, which assigns another etymology to these names (*m3ʿ*-, “Truthful Horus/Thoth”).⁸¹ The names Φιλαπόλλων, Φιλέρμης, Φιλοδιόσκορος, etc., therefore, rather express devotion to a pagan god, and became popular because of the fashion of the imperial period for loyalist epithets.

- 90 Although semantically it seems more satisfactory to think that the quarry names Philammon and Philosarapis meant “Beloved of Amon, of Serapis,” who consequently, watched over the success of the work, I think that these names meant “devotee of” these gods. They are paralleled by the quarry name *Philoc(aesar?)* and the column *Philotraianos* (cf. *s.n.* Μυριμύς, § 75).

- 91 *Philoc()*

The name of this quarry (Peacock Nos. 11-13) is known only by a dipinto written in red ink under the base of the giant column which remains in place at the head of the Pillar-Wadi. It is so faded that we had never been able to read it, until 14th January 2017, when a visit to Mons Claudianus gave us the opportunity to take a digital photo that was then treated with the software *DStretch* (Fig. 22). The dipinto is formulated on the same model as the inscription at the Harpocrates quarry, which also belongs to the *caesura* of Epaphroditos.

[c(aesura)][?] Ep(aphroditi)
 [e]x lat(omia)
 [P]hiloc()

Fig. 22



DIPINTO UNDER THE BASE OF THE GIANT COLUMN. THE BAD LIGHT FORCED US TO COBBLE TOGETHER A MAKESHIFT UMBRELLA.

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- 92 The reconstruction of *c(aesura)* is derived from the offset position of *Ep(aphroditi)*. No ostrakon gives us a clue for completing the quarry name: was it a loyalist epithet (*Philocaesar* rather than *Philocommodus*, since no major works at Mons Claudianus can be placed under Commodus)? Or just a personal name?
- 93 Φιλοκάραπις (Trajan and c. AD 150)
 Φιλοκάραπις (16 occurrences of this quarry) is never used with λατομία except in *O.Claud.* IV 841, 47 (c. AD 150), a block count where the scribe systematically uses the generic, and which reads λατ() Φιλοκάραπις. *Philosarapis*, which is originally a kind of honorific title (cf. § 88-89), is attested as a personal name from the end of the second century AD, hence after the Trajanic occurrences of our toponym. If *Philosarapis* referred to a person, the scribe would have written λατ() Φιλοκαράπιδος, as he writes elsewhere λατ() Μάρωνος. Nevertheless, λατ(ομίᾳ) should be restored, in this count, in the dative, judging by λατ(ομίᾳ) τῇ αὐτῷ[ῇ] and λατ(ομίᾳ) Μέσση Εἰσιδι in lines 20 and 54. If Φιλοκάραπις is the title of the quarry, one should have Φιλοκαράπιδι (but see λατ(ομίᾳ) Κόχλαξ lines 63 and 64). I find it, however, difficult to explain the masculine article, instead of the feminine in *O.Claud.* IV 810, 1: δὸς εἰς τὸν Φιλοκάραπιν. For Φιλοκάραπις should be feminine as well as masculine, as φιλόπατρις. In fact, it behaves as if it were a theonym.
- 94 There was probably another quarry with the same name when work resumed at the end of the second century CE. In a letter to the *procurator metallorum*, the quarry workers

report that, not knowing the official name of the quarry in which they work, they have on their own initiative called it “Philoserapis” (*O.Claud.* IV 853, 19 [c. AD 186/187]).

95 Χρησμοάραπις (Trajan)

– στύλω Χρη\C/μοσεράπιδος: *O.Claud.* IV 657, 1-2.

– λατομ[ία] Χρη\C/C(μο?)αα[πιδ-]: *O.Claud.* IV 658, 1 (λατο(μία) ΧρηCμ(ο)αα () ed.). The infrared photo reveals, under the quarry name, an erased line which I cannot read, and does not help to understand the tangled traces that we would like to read as -μο - (fig. 23).

– δὸς εἰς τὸν ΧρεCμCοCάCρC(απιν): *O.Claud.* IV 811, 1.

– Χρησμοαα(άπιδι): chart for the distribution of water *O. Claud.* inv. 1538, 1 and 4 (Cuvigny 2005).

Fig. 23



O.CLAUD. IV 658, 1 (DETAIL).

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- 96 Loewe 1936 does not cite any compound theophoric toponym,⁸² but we can compare Χρησμοάραπις to another quarry name likewise made from two nouns, both of which, however, are proprial: Νικοτύχαι. The order of the elements implies that χρησμο- is the modifier, so that this quarry name should be understood as “Serapis of the oracle/oracles.” Is this neologism a quick way of expressing the concept of Cάραπις χρησμοδότης? Is it an “anecdotal”⁸³ toponym, reminiscent of a prophetic dream sent by Serapis to some foreman?

2. Conclusion on the toponymy of quarries

Table 3

dynastic	theophoric	anthropophoric	descriptive
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Αὐγο(ύκτη) Νερωνιανή Πλωτίνα Τραιανή <i>Philoc(aesar)?</i> Μίθρας Νικοτύχαι Ῥώμη Σελήνη Σέραπις? Σώζουσα Χρησμοάραπις	Ἄμμων?		
	Ἄνουβις		
	Ἄπις		
	Ἀπόλλων		
	Ἀρποκράτης	Βάρβαρος	
	Ἀφροδίτη	Εὐτύχης	Καινὴ λατομία
	Διόνυσος	Ἰερώνυμος	Κόχλαξ
	Ἐπίκωμος	Κάνωπος	Λουτήρ
	Ἐπιφανής?	Λέων	Λουτ(ήρ?) Ἰερωνύμου
	Εὐπλοία	Μάρων	Μεγάλῃ λατομία
	Ζεύς	Μυριεμός	Μέση
	Ἥρα	Νειλάμμων	Μέση Ἰσις
	Ἰσις (Μέση Ἰσις)	<i>Philoc(?)</i>	Μάρωνος Μακρά
	Μίθρας	epithets of devotion (?):	Πορφυρίτης
	Νικοτύχαι	Φιλάμμων	
	Ῥώμη	Φιλοάραπις (2 quarries)	
	Σελήνη		
	Σέραπις?		
	Σώζουσα		
	Χρησμοάραπις		

TAXONOMY OF THE QUARRY NAMES IN MONS CLAUDIANUS.

- 97 Most often theophoric, the names of *latomiai* draw on the same sources as boat names, usually theophoric and allegorical, as highlighted by P. Heilporn in his comment to *P.Bingen* 77, p. 343 sq. (2nd c. CE). Three merchant ships in this papyrus have the same names as some of our quarries: Zeus, Aphrodite, Selene. See also the ship called Ἀντίνοος Φιλοάραπις Σώζων in SB XIV 11850 (AD 149). The intention was to put the stone work under the protection of a god whose goodwill was solicited by calling the quarry “devotee of (such-and-such god).” The extraction of monoliths was at the mercy of unexpected weaknesses of the material, undetectable until it was too late, as evidenced by the basins and broken or split columns that were abandoned on site. In the letters in which they announce to the *procurator metallorum* the good news (ἰλαρὰ φάσις) of the completion of an order, the quarry workers are quick to attribute their success to Serapis, assisted by the Tyche of Claudianus and the *baraka* (which they also call Tyche) of the procurator.⁸⁴
- 98 The generic λατομία is only expressed when the specific is an appellative adjective; Λατομία then follows it: Μεγάλῃ Λατομία, Καινὴ Λατομία. Unlike the element πόλις always implied in the city name Καινή,⁸⁵ λατομία is never omitted in these two quarry names. Μέση is an exception: there is only one known example of Μέση Λατομία, and this quarry is otherwise mentioned only as Μέση.
- 99 While Loewe 1936 notes no specific element of theophoric toponyms that is a compound (it is always a pure theonym or a derivative), we see several compounds among the theophoric quarry names: besides the common Philammon or Philosarapis, also known as

anthroponyms, we note the polytheophoric Νειλάμμων and Νικοτύχαι –the latter being new in Egyptian documents– and the hapax Χρησιμολάραπς. We cannot, however, totally exclude the possibility that Philammon, Philosarapis and Nilammon are anthroponyms referring, as do Leon, Hieronymos or Myrismos, to real people, supervisors with whatever status on the working site.

- 100 Whether drawn from a god or a human, quarry names follow the same syntactic pattern. The theonym or anthroponym is in the genitive preceded by λατομία (e.g. λατομία Ἀπόλλωνος), but, when it happens to be used alone, instead of staying in the genitive (as in the case of another microtoponym at Mons Claudianus, the well of Cattius, designated as ὕδρευμα Καττίου or simply Καττίου or τὸ Καττίου), it takes the case that would be that of λατομία: this is no longer the name of a god or individual, but that of the quarry. Thus Λέων, Μάρων, Διόνυσος, Ἀπόλλων, Ἄνουβις are quarries. They are found in the dative, mixed with common nouns designating places, such as στομωτηρίῳ in the distribution lists of *O.Claud.* IV 769-787; in the series of delivery orders 804-819, those names, despite the general trend in Greek towards the omission of the article after a preposition,⁸⁶ are systematically preceded by the article (e.g. δὸς εἰς τὸν Διόνυσον), either because the sequence εἰς (locative) + anthroponym/theonym would have sounded strange or because it is customary, according to Mayser, for the *Lokalnamen*.⁸⁷
- 101 It is rare that, used after λατομία, the theonym / anthroponym, instead of being a complement to the name in the genitive, is in apposition: the only clear example is in Latin *latomia Sozusa*, the two Greek examples being ambiguous (Ἐπλοία, Μίθρα).
- 102 In general, it is unclear who the eponymous persons of the quarries were. In the case of the Latin account in *O.Claud.* IV 843, where *Hieronimi* is an entry along the same lines as *Cochlax*, we can say that the quarry took the name of the architect Hieronymos. But is the quarry “of Hieronymos” the same as the one called Λουτήρ –if indeed Λουτήρ is the short form of Λουτ(ήρ) Ἱερωνύμου? Other anthroponyms used as quarry names do not overlap the prosopography of the managerial staff. It is possible that these Maron, Myrismos, Leon, were *ergodotai* (foremen) whose working sites did not have a name –unlike the Nikotychai Quarry, equipped with a sign announcing both its name and that of its foreman Sarapion.
- 103 The late ostrakon *O.Claud.* IV 841 differs from earlier texts in that the generic λατομία, so often omitted otherwise, is systematically employed in front of the specific element. It is also the only document where we note a double specific: λατ(ομία) Μέση Εἵκειδι, λατ(ομία) Μάρωνος Μακρά.

3. On the fringe of quarries: *krepides* and *kopai*

- 104 In several lists of λατομιαί there are also names of κρηπίδες, some of which are called after a quarry. Documents such as *O.Claud.* IV 872 and 880 strongly suggest that these “quays” are platforms for putting blocks on wagons, as can be seen at the bottom of the Pillar-Wadi (Fig. 24). In *O.Claud.* IV 769, 770, 774, 775, 776, κρηπίδ(ι) appears, clearly without further specification, in lists of microtoponyms in the dative which are generally quarries, but not exclusively, since there is also στομωτηρίῳ (steelworks, *O.Claud.* IV 776, 12). It could be what some toponomasticians call “appellative,”⁸⁸ giving the word the restricted sense of a generic used to designate a specific place, in other words, a common categorising name used as a toponym: in this case, “the Quay.” In the charts of water

distribution, κρηπίδι is, however, accompanied by a determinant. In the best preserved of these charts, inv. 1538,⁸⁹ we find, among the *latomiai* and other microsites which received rations of water, κρηπίδι Μεγάλ(η) and κρηπίδι Ἦρας.

Fig. 24



Mons Claudianus. Column shafts on the *krepis* at the bottom of the Pillar-Wadi.

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- ¹⁰⁵ The term κοπή appears late in the ostraca of Mons Claudianus: four documents mention it, dated to c. AD 150 according to stratigraphy and prosopography. A. Bülow-Jacobsen convincingly suggests that it is a calque of *caesura*, a term that recurs in quarry-marks at Dokimeion.⁹⁰ The *kopai* are named after an important figure: the emperor (κοπή κυριακή: O.Claud. IV 841, 9), the *procurator* sc. *metallorum* (ἐπίτροπον... τῆς αὐτοῦ κοπῆς: O.Claud. IV 885, 6-7), Epaphroditos (κοπή Ἐπαφροδίτου: O.Claud. IV 841, 12; 30, O.Claud. inv. 7134), Enkolprios (κοπή Ἐνκολπίου: O.Claud. IV 841, 26; 41, O.Claud. IV 896, 7). We can probably identify the κοπή Ἐπαφροδίτου in the Latin mark *CEP* [= *c(aesura) Ep(afroditi)*] present at many quarries. The large account O.Claud. IV 841 shows the *latomiai* as subdivisions of *kopai*. It is unclear whether *kopai* corresponded to geographic areas of the *metallon*, or whether they were merely administrative categories, the meaning of which escapes us. Although it does not appear in the Trajanic ostraca, the system of the *kopai* must have existed before AD 150, since Enkolprios is known as *procurator metallorum* under Trajan (I.Pan 38); concerning Epaphroditos –whose name is more common– he is probably an imperial slave who was *conductor metallorum* in the period when work in Claudianus and Porphyrites resumed under Hadrian, after the Jewish Revolt of 115-118 (I. Pan 21 and 42).

V. Forts and fortlets (*praesidia*)

1. The toponyms on the amphora of the Barbarians (*O.Krok. I 87*)

- 106 *O.Krok. I 87* is an amphora which the curator of Krokodilo used in year 2 of Hadrian's reign, to copy circulars passing through his hands. Many of them mention a mysterious Paremboule,⁹¹ as well as several *praesidia* with names that are not otherwise attested on ostraca in the desert. These sites are probably outside *Mons Berenicidis*.
- 107 The toponymic character of Παρεμβολή is not above suspicion, since it could be a common noun meaning “camp” (= Latin *castra*). Two circulars recount military incidents at two *praesidia* which depend on this π/Παρεμβολή: Patkoua and Thonis Megale. Παρεμβολή appears each time in a formula in which the author of the circular, the centurion Cassius Victor, says that he attaches the copy of reports sent from these two *praesidia* and that have come to him εἰς παρεμβολήν. The absence of the article before παρεμβολήν is not a reliable indicator for deciding if this word is a toponym or a common noun. However, two good arguments suggest that παρεμβολήν does not simply mean “camp”. First, Cassius Victor addresses himself to a number of recipients scattered over a wide area that exceeds the limits of the Berenike Desert (since it is assumed that his correspondence will reach several prefects). Second, the language is the detailed and codified, as shown by the care with which he states his identification and that of his informants: ἐπάρχαις, (ἐκατοντάρχαις), (δεκαδάρχαις), δουλικάρειοις, σησκουπλικαρείοις, κουράτορσι πραίσιδ[ί]ων κατ' ὠρεινῆς Κάσσι[ου] Βίκτωρ (ἐκατοντάρχης) [στ]είρης β { δευτέρα} Εἰτουρ[α] [ω]ν [ἀν]τείγραφ[ο]ν διπλώματος πεμφθέντος μοι εἰς Π[α]ρ[ε]μ[β]ο[λ]ήν κτλ. (*O.Krok. 87, 109-111*), “To prefects, centurions, decurions, *duplicarii*, *sesquiplicarii*, curators of the *praesidia* of the desert, Cassius Victor, centurion of Cohort II {Second} of the Itureans. Copy of a *diploma* sent to me at Paremboule etc.”
- 108 If it is a place-name, as I think, Παρεμβολή is what toponymists call an “appellative.”⁹² I suggested in *O.Krok. I*, p. 139-141 to identify this Παρεμβολή as *Paremboule*, which is the first fortified Roman site south of Syene according to the *Antonine Itinerary* (161.2).
- 109 We have seen that the two *praesidia* which depend on the *castra* of Paremboule were called Πατκούα and Θώνικ Μεγάλη. The first is probably an Egyptian word.⁹³ The second hybrid combines an Egyptian noun (Θώνικ= “The Lake, The Pond”) and a Greek appellative adjective.
- 110 *O.Krok. 87, 68* shows a third name for a *praesidium*, Νιτρίαι: one of the recopied circulars emanates from a prefect,⁹⁴ Cassius Taurus, and introduces a report from the κουράτωρ πραίσιδ[ίου] Νειτρείων. The fortlet perhaps owed its name to the neighbouring natron deposits of Laton Polis (*O.Krok. I*, p. 142).

2. *Praesidia* on the route to Myos Hormos

- 111 Κροκοδιλώ/Κορκοδιλώ (Al-Muwayh, [25° 56' 33" N / 33° 24' 04" E])
The *praesidium* of Krokodilo takes its name from the profile of the rocky hill which overlooks it, when viewed from the northeast. The resemblance so struck a traveller that he represented the hill in the form of a crocodile with a rounded snout in a rock graffito in the area (Fig. 25a and 25b).⁹⁵

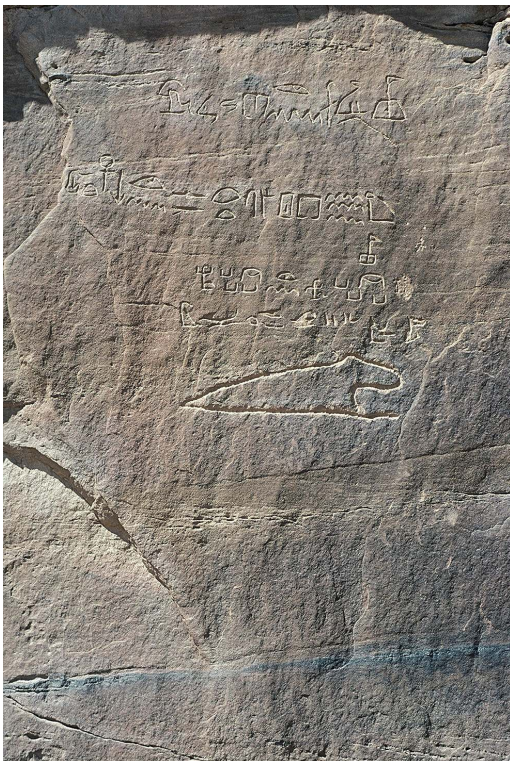
Fig. 25a



The rock of Krokodilo seen from the northeast.

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Fig. 25b



A rock graffito on a nearby cliff, probably inspired by the shape of the hill.

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- 112 Κροκοδιλώ seems to fit in the series of place names in -ώ well known in Egypt, but they are usually late recharacterizations from the Byzantine and Arabic periods, such as Λύκων Πόλις becoming Λυκώ or Ἀφροδίτη, Ἀφροδιτώ.⁹⁶ Here the toponym was created *ex nihilo* in this form, and, moreover, in the early empire, since Krokodilo was founded at the end of the first century CE, probably under Vespasian. Contemporaries were themselves confused, since the form is spelled twice Κορκοδίλων (O.Krok. I 18, 5: εἰς Κορκοδίλων; O.Krok. I 78: κουράτοϛ ροϛίϛ [πραιιδίου Κορκοδί]λων). Κροκοδιλώ is actually a case of a popular formation in -ώ, about which the words of P. Chantraine⁹⁷ are illuminating: “the suffix was used mainly to provide derivatives of nouns. Sometimes, it only serves to characterize the word as feminine: ἄνθρωπῶ [= ‘woman’ in Laconian dialect], but it is most common in nicknames like μορφῶ [‘beautiful,’ the name of Aphrodite in Sparta] or in words that designate a person or an animal feared or despised: ἄγκῶ [= old woman, scarecrow], μιμῶ [= female monkey, hag].” This expressive suffix reveals that the toponym belonged to popular speech. Such a whimsical appellation is atypical for a name given by the Romans.
- 113 Πέρσου⁹⁸
In the epigraphic *proskynemata* from the *Paneion* in the Wadi al-Hammamat, this toponym appears firstly in demotic (*prs*) at the beginning of the Ptolemaic period, then in Greek under the early Julio-Claudian emperors. At that time, Persou is the name of the Wadi al-Hammamat quarries (called “Rohanou Valley” in Pharaonic times), as proven beyond doubt by the *proskynemata* “in front of the gods of Persou” engraved on the entrance of the small sanctuary of the village situated opposite the *Paneion* (25° 59' 25" N / 33° 34' 12" E).
- 114 Three dated *proskynemata* mention Persou: Kayser 1993, No. 4= SB XXII 15642 from year 18 of Tiberius' reign (AD 32); Kayser 1993, No. 15= SB XXII 15655, probably from year 10 of the same emperor (lacunose titulature); Kayser 1993, No. 7= SB XXII 15645, dated year 9 without the emperor's name, that Fr. Kayser suggests is not of Tiberius, but Nero (AD 62), due to the position of the graffito on the doorpost.
- 115 In the *Paneion* facing the village, quarry workers carved several Demotic *proskynemata*, and one in Greek, in which they claimed to be “from Persou and Tamostymis” (κληρουργὸς ἐκ Πέρσου καὶ Ταμοσύμεως, I.Ko.Ko. 105), which drove me to the hypothesis of a complex toponym consisting of a correlated noun phrase (although this structure is mainly attested in Egypt for the names of *klèroi*). Πέρσου would have been the area of *bekhen* quarries (Wadi al-Hammamat) and Ταμόσυμις (assuming the name inflects), the mines of Wadi al-Fawakhir.⁹⁹ Ταμόσυμις is not attested elsewhere, other than as epiklesis of Isis (Isis Ταμεστομε) in a lost stele from Qusayr mentioned by Adolphe Reinach and dating back to year 25 of Augustus' reign (6-5 BC).¹⁰⁰
- 116 The ostraca from Krokodilo and Maximianon contain many references to a *praesidium* of Persou, where Athena was honoured, and which had a vegetable garden that provisioned these two sites. This *praesidium*, close to an abundant well, cannot be the village of Wadi al-Hammamat, which does not have a well and which is not a *praesidium*: it must be near Bi'r Umm Fawakhir, located some 5 km from the *Paneion*, but it has been completely destroyed. I deduced that the toponym Persou migrated, and I distinguished between Persou I (the village opposite the *Paneion* cave of Wadi al-Hammamat) and Persou II (the *praesidium* next to Bi'r Umm Fawakhir, attested at least from the time of Trajan). An ostrakon found in Wadi al-Fawakhir and dating from the reign of Caligula or Claudius¹⁰¹

reveals the presence of a Roman military post earlier than the ostraca from Maximianon and Krokodilo, but we cannot tell if the name was already Persou or still Tamostymis (if that name was indeed attached to the Wadi al-Fawakhir).

- 117 The oldest papyrological reference to Persou predates the ostraca from Maximianon and Krokodilo. This is a receipt on an ostrakon belonging to Nikanor's archive found at Koptos, *O.Petrie Mus.* 112. It was issued in year 2 of Nero's reign (AD 55/56) by a *κουράτωρ* Πέρσου. It is difficult to decide where the soldier was stationed: still in the village next to the *Paneion* of Wadi al-Hammamat where the last *proskynemata* engraved on the door posts of the chapel door date back to Nero,¹⁰² or already in the Wadi al-Fawakhir? The migration of the name Πέρσου from the Wadi al-Hammamat (Persou I) to Wadi al-Fawakhir (Persou II) may have occurred when the village of Wadi al-Hammamat was abandoned: it is a common fact that a toponym migrates from a disused site to a nearby one, and it is not possible for two adjacent sites to have the same name at the same time.¹⁰³ Unless, as J.-P. Brun thinks, the name Tamostymis had fallen into disuse and the complex toponym Πέρσου καὶ Ταμοστύμις was simplified from the Ptolemaic period to Πέρσου to signify the combination that might be considered a *metallon*, formed by the two sites.

- 118 It is unclear whether Πέρσου, an indeclinable genitive of Πέρσης, is to be understood as the ethnic or as the derived anthroponym.

- 119 Μαξιμιανόν (Al-Zarqa' [26° 00' 03" N / 33° 47' 15" E])

A proprial adjective derived from the anthroponym Maximus. This name probably commemorates an important figure. One naturally thinks of the prefect of Egypt Julius Ursus, who ordered the construction of forts on the Berenike road during Vespasian's reign. Two candidates come under consideration: C. Magius Maximus, prefect in year 1 of Tiberius' reign (AD 14/15), and L. Laberius Maximus, prefect in AD 83 (year 2 of Domitian's reign). In the first case, Maximianon would have already been the name of the Julio-Claudian military post, traces of which were found under the dump. In the second case, it would mean that the present *praesidium* had been built a few years after the Berenike road was developed, in AD 79. The first hypothesis is the more attractive, since it is natural that a military post, when rebuilt, retains its name (cf. for instance the *praesidium* of Apollonos Hydreuma, which kept the name of the station which predates the *praesidium*).

- 120 Σιμίου (Bi'r Sayyala? [26° 07' 29" N / 33° 55' 50" E])

Simiou is probably an anthropotoponym, a genitive of the Greek anthroponym Σιμίας which has a variant with an expressive geminate, Σιμμίας.¹⁰⁴ It is the only ancient name for a *praesidium* that we know for the section of road between Maximianon and Myos Hormos. Thus, there are three candidates for identification: Al-Hamra', Bi'r Sayyala and Dawwi. O.Max. inv. 920, dating from c. AD 90-125 (according to stratigraphy) clearly shows that the *praesidia* of Persou, Maximianon, and Simiou directly followed from west to east when the ostrakon was written. Dawwi, which is farthest from Maximianon and whose construction date falls within the final phases of Maximianon, can be ruled out.¹⁰⁵ Al-Hamra' (26° 02' 18" N / 33° 53' 29" E) is today the immediate neighbour of Maximianon in the direction of Myos Hormos, but this fortlet appears to have been built in the second quarter of the second century, which leaves open the most interesting hypothesis that Simiou could be Bi'r Sayyala, a fortlet in which J.-P. Brun's excavations revealed a complex evolution that could date back to the Ptolemaic period (although surveys,

unfortunately limited, have not revealed Ptolemaic material). Hence the idea that the *praesidium* would have followed on after the digging of a well, ordered by Simmias, when he was commissioned by Ptolemy III to capture elephants.¹⁰⁶ The Roman toponym would have retained the spelling without the geminate.

3. *Praesidia* on the road to Berenike

- ¹²¹ Names of stopovers on the Berenike road have long been known –with some mistakes that ostraca have enabled us to correct– thanks to three written Roman itineraries. The route description by Pliny the Elder, which dates from a period before the construction of the first *praesidia* in AD 76/77, shows that some of these were positioned around older wells, the names of which were preserved, hence the generic element ὕδρευμα in some of the complex toponyms. We cite them in the order in which they are encountered from Koptos to Berenike.
- ¹²² Φοινικῶν (Al-Laḳita [25° 52' 57" N / 33° 07' 22" E])
Today there are no remains of the *praesidium* where the roads to Myos Hormos and Berenike meet, but the palm grove from where it got its name still exists. Φοινικῶν is never preceded by the article.
- ¹²³ Δίδυμοι (Khasm al-Minayh [25° 45' 16" N / 33° 23' 40" E])
The official name is Δίδυμοι (so εἰς Διδύμους, ἀπὸ Διδύμων), but some writers have hesitations. Thus, we find the singular in two ostraca of the third century: *O.Did.* 35, letter of the curator of Aphrodite to Psenosiris, κουϞ[ρά]τορι Διδύμου and *O.Did.* 39, draft of a *hypomnema* produced by Memnon, κουράτορο(ς) π(ραι)ιδίου Διδύμου. An earlier ostrakon,¹⁰⁷ expertly written, is an order from a certain Psenthotes to provide rations to two passing donkey drivers or camel drivers, addressed “to the contractor of the well at Didymos,” κονδούκτωρι Διδύμου ὕδρεύματ(ος). This Psenthotes must have belonged to a transport company and may not have known the official name of Didymoi, which would have been corrupted, taking its form from Ἀπόλλωνος Ὑδρευμα.
- ¹²⁴ Placed under the protection of the Dioscuri (invoked in the *proskynemata* of letters written there),¹⁰⁸ Didymoi belongs to a series of three theotoponyms on the road from Berenike, although δίδυμοι is not a proprial name, which explains that, unlike Διός and Ἀφροδίτη(ς), it is never fixed in the genitive.
- ¹²⁵ Ἀφροδίτη(ς) Ὅρους, “Aphrodite of the Desert” (25° 36' 21" N / 33° 37' 27" E)
Two ostraca from Didymoi attest the full name of the *praesidium*. The letter *O.Did.* 406, a contract of sorts whereby a husband entrusts to another man the protection of his wife, hired as a prostitute at Didymoi, stipulates that the protector give her back to her husband ἐν πραιειδίῳ Ἀφροδίτης Ὅρους. *O.Did.* 430 is a letter to a pimp written by Longinus, κουράτωρ Ἀφροδείτης Ὅρους. This is the only toponym in our corpus to include a locative modifier,¹⁰⁹ perhaps to distinguish it from another Aphrodite of which we have no knowledge. In Egypt, Ὅρους is only found in the same position in the toponyms Κερκέουχα Ὅρους, Ἰκίδιον Ὅρους (villages) and Ἰκειῶν Ὅρους (monastery).
- ¹²⁶ There is some fluctuation in the ending of the theonym, which sometimes remains fixed in the genitive Ἀφροδίτης, and sometimes inflects: we find εἰς Ἀφροδείτης in *O.Xer.* inv. 1306 (*titulus* on amphora) and in the post register *O.Did.* 22, 3 and 5, but εἰς ἈφρϞ οδίδην in *O.Did.* 39, 8-9 and ἰς Ἀφροδείτην in *O.Xer.* inv. 995 fr.c, l. 5 (poem about the wells on the Berenike road). In the list of *praesidia* *O.Dios* inv. 18, it appears as [Ἀφ]ροδίδη.

127 Κομπασί (Bi'r Daghabagh [25° 23' 52" N / 33° 49' 08" E])

The reading *Compasi* of *It. Ant.*, already confirmed by the inscription commemorating the construction of the *lacci* (cisterns) at Apollonos Hydreuma, *Compasi*, Berenike and Myos Hormos,¹¹⁰ is also found on many ostraca from Dios, the direct neighbour of Κομπασί to the south. The linguistic affiliation of the name is unclear; one would expect an Egyptian name, like that of its tutelary deity, the goddess Techosis (Τέχωσις), whose name, attested as an anthroponym, but never as theonym, means “Nubian” (T3-igš).¹¹¹ This is the only deity with a vernacular name, honoured in a *praesidium* in the Eastern Desert which is due to the age of the site. Here auriferous quartz veins were exploited from the New Kingdom and still under the Ptolemies (from this period there are remains of ore mills, identified as such through the best preserved mills excavated in 2014 at North Samut).¹¹² When they opened the Koptos to Berenike road to traffic, the Romans took advantage of the well at Daghabagh, which was presumably already named Kompasi, although Pliny only calls it a *hydreuma* in his list of stages on the road. The well must have been particularly productive because the ostraca from Dios reveal that Kompasi was both a centre for market gardening and for laundry: the inhabitants of Dios used to order fresh vegetables from Kompasi and to send their dirty laundry there.

128 Διός (Abu Qurayya [25° 12' 52" N / 34° 02' 03" E])

Built, as indicated by its dedication, in AD 115/116, this *praesidium* probably kept the name of the nearby fortlet it replaced, Bi'r Bayza. The latter may have been abandoned because its well was not satisfactory. The excavations carried out by J.-P. Brun and M. Reddé at Bi'r Bayza showed that this fort dates from an earlier period and is probably contemporary with Didymoi and Aphrodites. Hence the idea that it was already called Dios, which fits nicely in the series.

129 In Latin texts, Διός is not transliterated but translated, as shown in the *Antonine Itinerary* (*Iovis*), and in a Latin post register, where the curator presents himself as *curator praesidio Iovis* (l. *Iovis*).¹¹³ Διός is a fine example of the spontaneous adaptation in daily speech of an institutional toponym. If the title of the commander of the fortlet is κουράτωρ πρεσιδίου Διός (O.Xer. inv. 310), the brevity of the word obviously displeased the Greeks who, to say “go to Dios,” “send to Dios” wrote εἰς τὰ τοῦ Διός and rarely εἰς τὸ τοῦ Διός, “Zeus’ Way,” so to speak.¹¹⁴ Finally, Τατουδιός undergoes univerbation among some writers. Thus we read in a letter: τίνι ἂν δῆς μονομάχο τῶν Τατουδιός, “the courier of Tatoudios to whom you will hand over...” (O.Dios inv. 1238). Or: κόμικον παρὰ Ἀτρῆν ἱππεὺς Τατουδιός, “receive from Hatres, cavalryman from Tatoudios” (O.Dios inv. 507).

130 Ξηρὸν Πέλαγος (Wadi Jirf, [24° 55' 39" N / 34° 13' 50" E])

Although the dedication of the fortlet was destroyed, depriving us of a precise date, Xeron Pelagos was probably built at the same time as Didymoi, Aphrodite and Dios / Bi'r Bayza on the orders of the prefect Iulius Ursus, in year 9 of Vespasian's reign. Yet it does not register in the theotoponymic system of these foundations, but received the beautiful descriptive name “Dry Sea,” also used for an establishment of unknown character in the vicinity of Mons Claudianus.¹¹⁵ The bestowal of two identical names is possible only because the two areas, that of the great imperial quarries, and the *Mons Berenicidis*, fell under two different administrations, so that there was no risk of confusion. The recurrence of the oxymoron Ξηρὸν Πέλαγος shows that the large sandy stretches of the Eastern Desert spontaneously reminded the ancients of dried seas. Literary reminiscences may have influenced the choice of the toponymic authority: at the time when the two

sites were bestowed this name, that is in the second half of the first century CE, the paradoxical concept of a dry sea appears in several passages in Latin poetry;¹¹⁶ it was only later, especially in the Byzantine period, that it is found in Greek, also in poetic texts.

- 131 As Διός, Ξηρόν Πέλαγος may have been translated, not transliterated by Latin-speakers: the fortlet is called *Aristonis*, probably a corruption of *Aridum*,¹¹⁷ in the *Antonine Itinerary*, which also gives the neighbouring site the Latin form *Iovis*, while the *Peutinger Table* and the *Ravenna Cosmography* have the Greek forms *Xeron* and *Dios* respectively.
- 132 The place name, which appears only on ostraca from Dios and Xeron, is often abbreviated Ξηρόν¹¹⁸ and no known example of Ξηρόν Πέλαγος comes from within these two forts, where deposits of ostraca are later, as if the second element had been abandoned in the third century. In fact, there is no trace in the three ancient itineraries of the transferred generic, Πέλαγος.
- 133 Φαλακρόν (Duwayj [24° 44' 09" N / 34° 25' 40" E])
This is probably the name of the remarkably well preserved fort of Wadi Duwayj investigated by Michel Reddé in 2010, during our first season in Xeron, but the toponym does not appear in the few ostraca collected on site,¹¹⁹ nor in the letters from Duwayj found at Xeron.
- 134 In all ostraca where it appears, the toponym (*Falacro* in *It. Ant.*, *Philacon* in *Tab. Peut.*) is a neuter word of the second declension. The earliest occurrence is in *O.Krok.* I 61, 4 (102/103 or 121/122), where a Beduin attack is perhaps mentioned, which would have occurred κατὰ Φαλακρόν. This suggests that the *praesidium* already existed, though the rarity of the name in ostraca from Dios and Xeron could have made us doubt this. In the latter site, an immediate neighbour of Duwayj, the name of Phalakron appears only in a poem on the wells (*O.Xer.* inv. 995, beginning of the third century). In *O.Dios* inv. 818, a list of *praesidia*, Xeron directly follows Apollonos (it is true that this list also omits Dios between Xeron and Kompasi).
- 135 The generic element which tacitly relates to Φαλακρόν can not be πραικίδιον, as a bald fortlet does not make sense; I am inclined to believe that Φαλακρόν is the abbreviation of a complex toponym, like Ξηρόν Πέλαγος, often abbreviated Ξηρόν, and that the generic element that can be restored is Ὀρος as in Μέλαν Ὀρος, or Ἄκρον, Ἀκρωτήριο. "Bald Mountain" would refer to the pointed mountain that stands out behind the *praesidium* (Fig. 26).

Fig. 26



The *praesidium* of Phalakron. In the background, the bald mountain.

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136 Ἀπόλλωνος Ὑδρευμα (Wadi Jamal [24° 32' 06" N / 34° 44' 15" E])

The oldest attestation of the site is in Pliny, *Nat.* 6.102 (*mox ad hydreuma Apollinis*), but it may be mentioned in an ostracon from the third century BC found at Bi'r Samut (O.Sam. inv. 720). We read τοῖς ἐπὶ τοῦ Ἀπολλωνίου καὶ Προεμβήκει καὶ Πανιείωι in the prescript of this circular addressed to supervisors responsible for several successive stages of the road from Edfu to Berenike. Without being completely sure, we have reason to believe that Proembesis is the ancient name of Bi'r Samut; as for *Paneion*, the last named stage, this can probably be identified with the station located in front of the *Paneion* of al-Kanayis. The order of the sites mentioned is, thus, from the south towards the valley. It is, therefore, tempting to identify this τοῦ Ἀπολλωνίου with Ἀπόλλωνος Ὑδρευμα, admitting the preterition of the generic element, but also an error with the specific, the theonym having been replaced by an anthroponym.

137 In the ostraca of the *praesidia*, the generic Ὑδρευμα is indifferently employed¹²⁰ or omitted.¹²¹

138 Καβαλσι[?] (Abu Ghusun [24° 23' 13" N / 35° 02' 56" E])

Until recently, the name of the stage situated between Apollonos and Kainon Hydreuma occurred only in the three itineraries of the manuscript tradition, which offer various spellings: *Gabaum*, *Cabalsi*, *Cabau*. It now appears in a poem of the third century on wells found at Xeron (O.Xer. inv. 995, Br. C, 14 [Fig. 27]). Unfortunately, it is compressed at the end of a line and may be abbreviated. Only the first three letters are certain: Καυ. . . . The grapheme *b* of the Latin transliterations can be explained by the spirantization the consonant *v* in Latin.

Fig. 27



O.Xer. inv. 995, fr. c: Kabalsi? mentioned at the end of line 14.

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- 139 At the time of Pliny, there were no wells between Apollonos Hydreuma and Novum Hydreuma. Despite its oddity, the toponym Kabalsi? should be part of the building campaign ordered by Iulius Ursus in AD 76/77. The traditional identification with the visible remains of Abu Ghusun, where the surface ceramics were dated 1st to 2nd and 4th to 6th centuries,¹²² is questionable.
- 140 Καίνων Ὑδρεῦμα (Wadi Abu Qurayya?)
This *praesidium* on the Berenike road, built on the site of a well already mentioned under the name “New Well” by Pliny,¹²³ appears also in the three itineraries of the manuscript tradition. We do not know if this toponym, of which Pliny was aware, dates back to (at least) the Ptolemaic period, or if it refers to the sinking of a new well in the first years of the Principate. Kainon Hydreuma is too far south to appear with any frequency on the ostraca from the fortlets we have excavated. It is however mentioned in the poem found in Xeron, which celebrates the water from the various wells on the Berenike road, listed from north to south: Καίνων Ὑδρεῦμα (O.Xer. inv. 995, fr. c, 15). According to the stratigraphy, the poem dates from the beginning of the 3rd century and agrees with other sources that make Kainon Hydreuma the last stage on the road before Berenike.
- 141 The identification of Καίνων Ὑδρεῦμα is debated. I share the not uncommon opinion that it is the site called today Wadi Abu Qurayya, a cluster of several buildings situated uphill and downhill. Among them, two fortlets are well visible on Google Earth at the bottom of the mountain (24° 03' 45" N / 35° 18' 05" E). Up to now, the most suggestive description is that of Meredith, based on Wilkinson's unpublished travel diary: “Wilkinson found here separate walled enclosures of various shapes and sizes, one being a normal Roman square but without bastions and another a square but with one rounded end (with bastions), closely resembling the castellum at Semnah (...). Three small forts perched on isolated hills are situated at intervals extending over a mile up a wadi. The last of these overlooks a well beside which are remains of what may be the beginning of a long conduit or aqueduct down to the main enclosures. This small hill fort contains within its wall a high point from which all the other enclosures are visible.”¹²⁴
- 142 According to S. E. Sidebotham, Wadi Abu Qurayya was occupied, from the evidence of the surface ceramics, from the Ptolemaic period to late antiquity.¹²⁵ The site is at 25 km from Berenike, which nicely fits with the 18 Roman miles indicated by the *Antonine Itinerary* between the two places. There the Greek Καίνων Ὑδρεῦμα is transliterated in Latin *Cenon Hidreuma*.
- 143 The question of the identification of Καίνων Ὑδρεῦμα has been embroiled by the mention, in Pliny, of a *vetus hydreuma* which has focussed scholars' attention, probably because of a mistranslation in the Loeb edition: *mox ad Novum Hydreuma a Copto CCXXXVI. Est et aliud hydreuma vetus –Trogodyticum nominatur, ubi praesidium excubat deverticulo duum*

miliun; distat a Novo Hydreumate VII. This passage should be understood as follows: “Then (one arrives) at New Well, at 236 miles from Coptos. There exists also another well, an old one, which is called ‘Trogodytic,’ where a garrison mounts guard, two miles off the main route. It is at a distance of 7 miles from Novum Hydreuma.” In this text, it should be observed at first that *hydreuma vetus* is not a toponym. The toponym which Pliny attributes to this “old well” is *Trogodyticum*. It appears in no other source. Scholars are thus wrong to speak of a station which would have been called *Vetus Hydreuma*. Second, why did many scholars identify Wadi Abu Qurayya with “*Vetus Hydreuma*”? Because, I think, of the mistranslation in the Loeb edition, where it is understood that the garrison there consisted of two thousand men. Five forts were not too much to host this huge troop! But, if “*Vetus Hydreuma*” was identified with Wadi Abu Qurayya, *Novum Hydreuma* had to be placed elsewhere. On Meredith’s map, it is situated at Wadi al-Kashir (24° 11’ 03” N / 35° 14’ 05” E). Until recently, it was also Sidebotham’s view. However, there is nothing there, except for what looks like a *hafir*, i.e. an oval levee of gravel meant to retain flood water.¹²⁶ S.E. Sidebotham informs me that he now prefers to identify *Novum Hydreuma* with the tiny fort of Wadi Lahma (or Lahami, 24° 09’ 55” N / 35° 21’ 55” E).¹²⁷

- 144 Scholars who identify Wadi Abu Qurayya with the alleged *Vetus Hydreuma* are well aware that Wadi Abu Qurayya tallies, in terms of distance, with the *Cenon Hidreuma* of the *Antonine Itinerary*. It obliges them to imagine either that Pliny’s New Well is another one than the *Itinerary*’s, or that *Novum Hydreuma* and “*Vetus Hydreuma*” are one and the same site.¹²⁸ As for the Plinian *Trogodyticum Hydreuma*, it remains a mystery.

4. *Praesidia* surrounding Mons Claudianus

- 145 Three names of *praesidia*, other than those that control the *metalla* of Claudianus and Tiberiane appear in the O.Claud. Raïma is by far the most represented, with approx. 90 occurrences; Kampe has 16 references, and Lakkos, only one which is certain.

- 146 Ραῖμα, Ραειμα (Abu Zawal? [26° 40’ 18” N / 33° 14’ 26” E])

Both spellings are well represented: they are two different ways of rendering the diaeresis. The word normally does not inflect, but it exceptionally has an accusative ending in inv. 1801 (εἰς Ραῖμας). Christian Robin, whom I consulted on this toponym, believes that a Semitic origin (specifically Arabic or Aramaic) is possible. I reproduce the note, dated 28/07/1994, with which he kindly provided me: “The RYM root is well attested in Arabic, see especially (dictionary Kazimirski):

raym: supplement; hill; tomb; white gazelle

rīm: tomb; burial

- 147 In Arabic, adding -a(t) gives the singular (as opposed to the collective). The Greek Ραῖμα can, therefore, transcribe an Arabic word *Rayma(t)* whose meaning could be “hill,” “tomb,” etc. In Hebrew and Syriac, the correspondent of the root RYM is RWM, which can give derivative forms with a Y in place of W in Syriac (dictionary Payne Smith):

raymo’: wild bull, buffalo, unicorn

reyomo’: support

reyomto’: very large stone, barrier

- 148 Not only may the toponym Ραῖμα be of Semitic origin (specifically Arabic or Aramaic), but it has a matching term in Yemen, and a rarer one in Saudi Arabia. In south Yemen, the repertoire of toponyms indicates four *Rayma* (*People’s Democratic Republic of Yemen*.

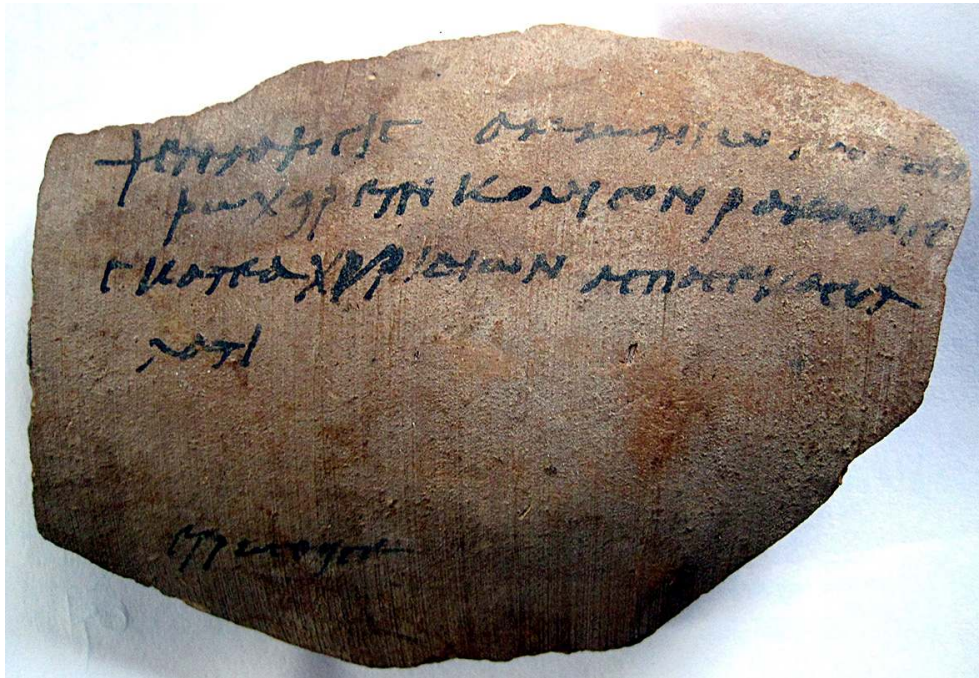
Official Standard Names. Prepared by the Defense Mapping Agency Topographic Center, Washington 1976, p. 165). In North Yemen, a less systematic repertoire gives seven. In Saudi Arabia, I note five *Rīm*, one *ar-Rīmān*, one *Rīmān* and one *ar-Rayma*. *Rayma* is a very common toponym in southern Arabia (but rarer in the Arabian desert)."

- 149 The many letters written by curators of Raïma to correspondents at Mons Claudianus (centurion, curator, *oikonomos*) show that Raïma was the first way station after Claudianus in the direction of the Nile and, conversely, the last station before Claudianus on the ὁδὸς Κλαυδιανοῦ. These messages are often cover letters or receipts tracking the official letter.
- 150 Raïma was not only an official relay station of the postal service, but also a stage where caravans and teams drawing wheeled vehicles stopped and drank. The *praesidium* must have had a well like many fortlets of the desert. It is possible that they had to build a second one nearby: this could be the <h>*ydreuma* which, writing from Raïma, Antistius Flaccus tells his colleague Caninius, who is at Mons Claudianus, about the successful drilling (*O.Claud.* I 2). They certainly did not wait until the reign of Trajan (date of the letter) to sink a well in Raïma, the name of which is restored with a fair degree of certainty on an ostracon of AD 68.¹²⁹ This new well near Raïma may be the same as that referenced in the letters of Demetras *O.Claud.* II 383 and IV 864: Demetras informs his correspondents that a stonecutter sent from Mons Claudianus was not present at the *hydreuma*, and, secondly, that baskets which should have been sent from Raïma to the *hydreuma* went off to Claudianus. Several curators' letters betray the fear of running out of water or are requests for equipment for the maintenance of shadufs (plural, κήλωνες, κηλώνεια: one for each well?).¹³⁰
- 151 It comes as no surprise that Raïma has a vegetable garden (κήπος), which allows the curator to send vegetables to the centurion stationed at Claudianus (*O.Claud.* II 370).
- 152 One would think that Raïma received its supplies from the valley, when the *poreia* went towards Claudianus, passing through Raïma. Yet we observe that Raïma's granaries are sometimes supplied from Claudianus (*O.Claud.* I 124 and 125: acknowledgments for loads of *achyron* [chaff] sent from Claudianus to Raïma by the *caesarianus* Successus; inv. 2188: acknowledgment to Philon for three *artabai* of bread). Raïma has a granary, and its manager (θησαυροφύλαξ) informs his counterpart in Claudianus that a carpenter collected his rations at Raïma (inv. 555).
- 153 The only major way station that could correspond to what we know about Raïma from this communication is Abu Zawal,¹³¹ c. 33 km walk from Claudianus. We owe to R. and D. Klemm the best description of this site, which was exploited as a gold mine under the New Empire and under the Ptolemies.¹³² According to their observations, Abu Zawal was only a station on the road to Claudianus in Roman times. They published a photo of an ostracon from the dump west of the fortlet, with a translation given to them by the late Georges Nachtergaele. Here is the text, which I transcribe from the photo (Fig. 28):¹³³

4	<p>Ψεντάηςις Ἀμμωνίῳ τῷ ἄδελ- φῷ χαίρειν. κόμικον ῥακάδιον σκάτεια χυριδίῳ. ἄσπαζε Κακυλ- λάτι. vacat ἔρρωσθαί σε.</p>
2	<p>l. κόμικαι 3 l. σκατῶν χυ- ex χρ- corr. l. χοιρ- l. ἄσπασαι 3-4 l. Κακυλλᾶν 5 σε--</p>

Psentaesis to Ammonios his brother, greetings. Take delivery of a rag containing pig manure. Greet Kasyllas. Farewell.

Fig. 28



Ostrakon found at Abu Zawal.

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- ¹⁵⁴ The three people mentioned have, unfortunately, not been identified with individuals known from the Claudianus ostraca, whence the letter was probably sent. It could indirectly confirm the identification of Abu Zawal with Raïma. Not only did Raïma have a vegetable garden, but an ostrakon from Mons Claudianus, *O.Claud. II 280*, a letter from a *praesidium* where market gardening is practised (it ends with the information, “vegetables have not grown yet”),¹³⁴ accompanies the empty return of “the basket you sent us loaded with excrements,”¹³⁵ that you will return to us when you get the opportunity.” The soiled basket could probably only serve for these contents thereafter in the comings and goings between Claudianus and Raïma. On the ostrakon from Abu Zawal manure is not transported in a basket, but in a piece of cloth. The diminutive ῥακάδιον (of τὸ ῥάκος, “rag”) is only known from papyrological documentation, and nearly all the occurrences are found on ostraca from the Eastern Desert, where a ῥακάδιον is for packaging up sticks of collyrium, dates and a tunic.¹³⁶ The editor of *O.Claud. II 280* questions the nature of the fertilizer sent: the ostrakon from Abu Zawal perhaps offers a response (and suggests additionally that there were no pigs at Raïma when this letter was written). It remains, nevertheless, curious that this gardener from Raïma is not happy with donkey or camel dung which must have been locally plentiful: did the pig waste have a special reputation? This is the case at least for the cultivation of certain fruit trees, according to Theophrastus (*CP* 2.14.2, 3.10.3 [ὑεῖα κόπρος]) and Pliny (*Nat.* 17.258-259 [*fimum suillum*]). But there may be another hypothesis: this was not for fertilizer, but an ingredient for a medicinal preparation or magic potion, as in the letter *O.Did.* 395, which contains the promise to bring τὸ κῶρ τῷ χυρογρύλῳ (τοῦ χοιρογρύλλου), “the dung of hyrax.”¹³⁷ A

morphological argument could be made in favour of this hypothesis: the curious accusative plural $\kappa\acute{\alpha}\tau\epsilon\alpha$ calls to mind a remark by Gignac on the non-contracted accusative plural $-\epsilon\alpha$ instead of $-\eta$ neuter nouns ending in $-\omicron\varsigma$ (type $\gamma\acute{\epsilon}\nu\omicron\varsigma$, gen. $\gamma\acute{\epsilon}\nu\omicron\upsilon\varsigma$): accusative $-\epsilon\alpha$ is found only in magical papyri.¹³⁸ In fact, next to the classical form $\tau\omicron\ \varsigma\ \kappa\acute{\omega}\rho$, gen. $\varsigma\ \kappa\alpha\tau\acute{\omicron}\varsigma$, Phrynichus (2nd century CE) indicates a common form $\tau\omicron\ \varsigma\ \kappa\acute{\alpha}\tau\omicron\varsigma$, gen. $\varsigma\ \kappa\acute{\alpha}\tau\omicron\upsilon\varsigma$.¹³⁹ It should be observed, however, that the pig is virtually the only domestic animal whose droppings are not widely advocated by ancient pharmacopoeia.¹⁴⁰ Nevertheless, it is remarkable that none of the three ostraca from the Eastern Desert mentioning manure employs the usual term, which is $\kappa\acute{\omicron}\pi\rho\omicron\varsigma$, both in magical or medical recipes or when it refers to fertilizer.

155 Καμπή

This *praesidium*¹⁴¹ is mentioned in sixteen ostraca, Trajanic and later, of Mons Claudianus. Its name seems to suggest that it was on a bend. This concept is common in toponymy.¹⁴² Once, in a letter, the word is preceded by the article ($\epsilon\acute{\iota}\varsigma\ \tau\eta\grave{\nu}\ \text{Καμπήν}$, *O.Claud.* I 155). In a *proskynema* in front of the Tyche of Kampe, the word is s-enlarged ($\tau\eta\grave{\nu}\ \text{Τύχη Καμπήτοϛ}$, *O.Claud.* II 237, 5). Two letters addressed by curators of Raïma (presumably Abu Zawal) to curators of Claudianus acknowledge receipt of post sent from Claudianus and confirm that it has been forwarded at once to Kampe (*O.Claud.* inv. 7027 and 7595). It seems therefore that Kampe was a station beyond Raïma in the direction of the Nile. Hence three identifications are possible: (1) Kampe would be the station of Al-Saqiya on the road to Porphyrites; its name, “The Bend,” would refer to the fact that one would turn off at Kampe towards Claudianus. Al-Saqiya (26° 44' 04" N / 32° 52' 54" E) is at c. 38 km walk from Abu Zawal. (2) Kampe would be Tal'at al-Zarqa' (26° 35' 09" N / 33° 11' 56" E). This site, which was never excavated, is called today Abu Shuwayhat by the Beduins; it comprises a well and animal-lines, and is situated at the entrance of the mountains, where a network of small valleys allows direct access to Abu Zawal (at least, it looks feasible on Google Earth for a pedestrian or a rider); the shortest way between the two sites is c. 11 km. (3) Kampe would be Qarya (26° 22' 16" N / 33° 01' 08" E). This *praesidium*, which can be seen behind the railway from the old Qena-Safaga road, is equipped with animal-lines. It may have been at the junction of the via Claudiana and the routes towards more southern sites, especially the Ophiates.

156 Λάκκος

O.Claud. inv. 2283 (Trajanic?) suggests that *Lakkos*, the Cistern, is a *praesidium*, probably so called by metonymy, because it did not have a well, only a cistern that was filled thanks to the caravans of animals loaded with skins. The recipient of this wrathful letter, in which he is accused of not having returned all the skins, is $\kappa\omicron\upsilon\rho\acute{\alpha}\tau\omega\rho\ \Lambda\acute{\alpha}\kappa\kappa\omicron\upsilon$, and the title *curator* is attested in the Eastern Desert for *curatores praesidiorum* only. The small *praesidium* at Mons Claudianus which, since Schweinfurt, has infelicitously been called “The Hydreuma,” despite the fact that it has no well but only a cistern, might be a good candidate. However, this identification is not confirmed by the ostraca found on the spot: the address of destination, when written on amphoras found at “The Hydreuma” is $\epsilon\acute{\iota}\varsigma\ \text{Κλαυδιανόν}$.¹⁴³

157 *O.Claud.* inv. 2283 is the only certain evidence of a *praesidium* called *Lakkos*. Among the other occurrences in the Claudianus corpus of the noun $\Lambda\acute{\alpha}\kappa\kappa\omicron\varsigma$, I am tempted to believe that in *O.Claud.* IV 714 and 717 (Trajanic) this is also the *praesidium* because of its proximity to two other toponyms: in these lists, the last items are, in order: $\Lambda\acute{\alpha}\kappa\kappa\omega$ (

Λάκκω?), Ῥαίμα, Αἰγύπτω, ἄρρωστοι, “to the cistern (C-?), at Raïma, in Egypt, sick people.”

5. *Praesidia* surrounding Umm Balad

A. The field data

158 Four fortified quadrangles exist within a radius of ten kilometers of Umm Balad. The most frequent names of *praesidia* in O.KaLa. necessarily refer at least to some of them. These four *praesidia* are:

– Qattar (27° 05' 21" N / 33° 13' 44" E) is located directly on the ὁδὸς Πορφυρίτου and 9 km as the crow flies from Umm Balad, c. 11.5 km for a traveller. It is the immediate neighbour of Umm Balad in the direction of Qena / Kaine.¹⁴⁴ As all the way-stations on the *hodos Porphyritou* (which Umm Balad is not), the *praesidium* of Qattar is flanked by animal-lines. All traces of the ancient well have disappeared: either it was inside the fort and was destroyed by the construction of modern wells, or it was outside and has silted up.

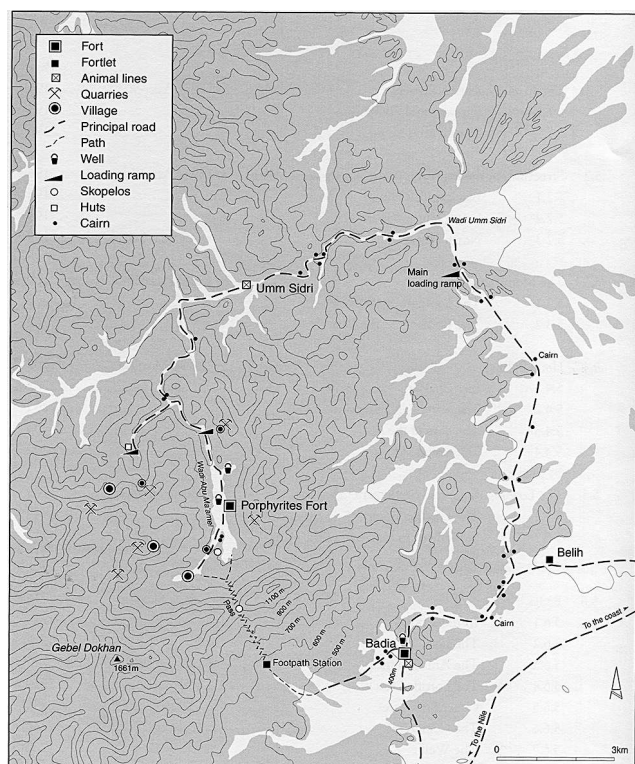
– Badiya (27° 12' 52" N / 33° 20' 42" E) is at 9 km as the crow flies, 11.20 km drive from Umm Balad, and its immediate neighbour in the direction of Porphyrites.¹⁴⁵ Like Umm Balad, it is located a short distance from the large Wadi Belih that the ὁδὸς Πορφυρίτου follows. The animal lines, which extend in front of the fort, show that it was an important stopping point for beasts of burden and draught animals coming or going to Porphyrites (see Fig. 29). From Badiya there were two routes to Porphyrites. Men and beasts could get to the “footpath station” at the foot of the mountain and pass through it by a zigzag trail on the hillside that led to Wadi Ma‘mal and the administrative centre of the *metallon*. However, transport wagons that were to be loaded with monoliths at the main loading ramp (Fig. 29) would have followed a track skirting the massif of Jabal Dukkhan. This long detour route was mainly used for the monoliths coming down from Porphyrites. A few metres from the fortlet of Badiya rises a curiously fortified rocky hill. There is no well within the *praesidium*; the closest known well, Bi‘r Badiya, still in use, is 500 m away; it is not possible to know whether it is the ancient well. A nearby well, that is unknown today, may have supplied the occupants of the fortlet.

– The “footpath station” (27° 13' 03" N / 33° 18' 25" E) is a tiny fort 8 km from Umm Balad as the crow flies, on a shortcut to Wadi Ma‘mal where the administrative centre of Porphyrites was.¹⁴⁶ This winding route¹⁴⁷ allowed quicker access to Wadi Ma‘mal for human and animal pedestrian traffic¹⁴⁸ than that via Wadi Umm Sidri, which wheeled vehicles would have used (Fig. 29). It is unclear whether camels could use it or not.¹⁴⁹ The satellite image shows that one could join this fort from Umm Balad bypassing Badiya, but we did not have time to explore exactly which route the ancients took. I believe, from the image, that this route was about 12 km.

– Wadi Belih (27° 14' 19" N / 33° 22' 55" E, at 13.5 km from Umm Balad as the crow flies).¹⁵⁰ This is a small *praesidium* with an atypical plan, seemingly devoid of an inner well, located in the estuary of Wadi Belih. It was, therefore, at the entrance (for traffic from the Red Sea) of the diagonal connecting Porphyrites and, later, the fort of Abu Sha‘r to Qena / Kaine across the Arabic chain, with Wadi Belih continuing into Wadi al-Atrash. Was the fortlet used to control the entry of the route to the Nile? Was it a way-station on the *via Hadriana*?¹⁵¹ It was one kilometre away from the heavy-loads route to the Porphyrites, which went through Badiya.¹⁵² From Wadi Belih one could reach Badiya by walking just

over 5 km. Wadi Belih has never been excavated; it has been dated from the surface ceramics to the first and second centuries CE.¹⁵³

Fig. 29



Tracks to Porphyrites, according to Maxfield, Peacock 2001, p. 194. The wells identified are reported.

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- 159 In the following table all the toponyms in the Umm Balad corpus are presented. A site is characterized as a *praesidium* when under the command of a *curator* or when the generic *praesidium* is attached to the specific. Names of *metalla* have already been studied; those of wells are in the section on *hydreumata*.

Table 4

	topographic object	Number of occurrences ¹⁵⁴	Of which number of <i>tituli</i>
Kaine Latomia	<i>metallon + praesidium</i>	102	93
Domitiane	<i>metallon+ praesidium</i>	43	31
Porphyrites	<i>metallon + praesidium</i>	36	5
Claudianus	<i>metallon+ praesidium</i>	6	0
Prasou	<i>praesidium + well</i>	29	2
Sabelbi	<i>praesidium + well</i>	22	6
Akantha	<i>praesidium</i>	10	0

Kardameton	well	7	0
Arabarches	<i>metallon?</i>	4	1
Germanike Latomia	<i>metallon</i>	1	0
Melan Oros	<i>praesidium</i>	5	1

THE TOPONYMS MENTIONED IN THE OSTRACA FROM UMM BALAD.

160 Μέλαν Όρος (Dayr al-Atrash?)

Among the *praesidia* mentioned in the ostraca from Umm Balad, Melan Oros has the fewest references: five in all. So it was probably the farthest away. Yet, its identification seems the soundest. Two of these occurrences clearly demonstrate that Melan Oros was between Umm Balad and the Nile Valley. In O.KaLa. inv. 637, the soldier Marcus Ares Verus, stationed at Melan Oros, promises to send vegetables to the Chief Doctor at Umm Balad “when the steward for the provisions for soldiers comes (sc. from the valley).” In O.KaLa. inv. 275, Antistius, short of bread, asks his correspondent Antonius, who is at Umm Balad, to send him some on the next *poreia*: we understand that when the supply caravan comes from the valley, Antistius will receive his bread ration and will take a portion that he will resend on the *poreia* so that it gets to Umm Balad, for Antonius. To reassure Antonius of a quick refund, Antistius added this encouraging information, “they say that the *poreia* is at Melan Oros” (ἐν Μέλανι Όρει). The find in Umm Balad of an amphora *titulus* mentioning the destination of Μέλαν Όρο[c] could be explained by a similar arrangement.¹⁵⁵

161 The demand for bread suggests that there is at least one *praesidium* (the one where Antistius is stationed) between Umm Balad and Melan Oros. As Melan Oros cannot be far away, it is tempting to identify it as Dayr al-Atrash, Antistius being then stationed at Qattar.

162 Μέλαν Όρος is once followed by the generic: a soldier is described in a draft of a letter as στρατιώτης ἀπὸ Μέλανος Όρους πραισιδίου (O.KaLa. inv. 637). Here, πραισιδίου is not the third element of a complex toponym, but an apposition.

163 It is tempting to identify the *praesidium* of the Black Mountain as that of the Black Stone Mountain (μέλανος λίθου Όρος) that Ptolemy, in his list of the Eastern Desert quarries *Geogr.* 4.5.27,¹⁵⁶ inserted between the mountain of porphyry and the mountain of *basanites* (i.e. greywacke quarries of the Wadi al-Hammamat).¹⁵⁷ The editors of the *Geography*, including Müller, do not provide an identification.

164 Πράcov (Badiya or Qattar?)

Indeclinable, the genitive of τὸ πράcov, the leek, which is also the name of a cape on the eastern coast of the African continent, mentioned several times by Ptolemy (τὸ Πράcov ἀκρωτήριο).¹⁵⁸ In the case of a cape, τὸ πράcov must refer not to the vegetable, but to a seaweed, *posidonia*.

165 According to letters sent to Umm Balad, this *praesidium* had a well, a cistern and a vegetable garden. As it seems to be an immediate neighbour of Umm Balad, it must be Badiya or Qattar, but the content of the letters does not allow us to be sure.

- 166 Abundantly attested in the ostraca of Umm Balad, Prasou may be mentioned in O.Claud. inv. 3438 (Trajanic), a fragmentary letter in which Epagathos asks Geta to send him something related to cavalry men; line 4 reads: ἐν Πιρᾶκου π[...].
- 167 Καβελβι (Badiya or Qattar?)
This site, which has 22 occurrences in ostraca from Umm Balad, cannot be far away. The existence of a curator of Sabelbi guarantees that it is a *praesidium*. Letter O.KaLa. inv. 266 is particularly informative: its author, Paulinus, asks his correspondent to send three men as reinforcements to clean out the well at Sabelbi so that the wagon will have water when it returns from Porphyrites. It is, therefore, tempting to assume that Sabelbi can be identified with Badiya (for another argument in favour of Badiya, see § 167), However, Qattar cannot be ruled out: would not the wagon returning from Porphyrites need water not only from Badiya, but also from Qattar? A. Bülow-Jacobsen, however, cites O.KaLa. inv. 422 to support the second hypothesis:¹⁵⁹ Hieronymos addresses this letter to Maximus, stationed in Umm Balad, asking him to send ropes “so that the wagon can hold steady on the descent (τὸ καταβατόν) which is at Sabelbi.” Close to Qattar the track descends gently: for A. Bülow-Jacobsen, this is what is meant with καταβατόν. A wagon carrying a monolith must have stopped at the top of this slope, waiting for the ropes to retain it.
- 168 The spelling of this enigmatic place name varies: Καβελβια (O.KaLa. inv. 697), Σεβιλβια (accusative Σεβιλβιαν) in O.KaLa. inv. 208 and 564 (although in this case, the palaeography suggests rather Καβελβιλ), Καβαλ[(O.KaLa. inv. 541). I have found only two foreign names with a similarity to Καβελβι: the Libyan name Ταβαλβι¹⁶⁰ and the name of the Mysian Κατέλβιος in Aristotle’s *Economics* (1353b). Cornelia Römer suggested to me a comparison with the Arabic *sabil*.
- 169 Ἀκανθα
The existence of a curator of Akantha, the author of a letter sent to a centurion residing in Umm Balad,¹⁶¹ seems sufficient to consider that this site, probably named after a remarkable acacia, either due to its isolation, or size, had the status of a *praesidium*. The moderate number of occurrences suggests that Akantha is either relatively far from Umm Balad (but perhaps not as far as Melan Oros), or off the road to Porphyrites. In reality, it cannot be very far: the purpose of the curator’s letter is, in fact, to complain about a certain Amais, posted at Umm Balad, who refused to send his rations to a certain Mithron stationed at Akantha. Mithron is forced to go to Umm Balad to pick them up, probably with the letter from his curator. Akantha may not be a stop for the *poreia*, the supply caravan.
- 170 Three letters date from the Domitianic-Trajanic phase of Umm Balad, which are requests to the authorities of Umm Balad (a centurion, the curator, the architect Hieronymos)¹⁶² to order the garrison at Sabelbi to send a cavalryman to escort a camel going to Akantha, so that it will not be going alone. Akantha seems, thus, to be a remote site accessed via Sabelbi. If Sabelbi is to be identified with Badiya, then Akantha could be either the footpath station or the fortlet of Wadi Belih. Two of these requests come from Turranius, who I think is curator at Prasou.¹⁶³ On the other hand, I do not see which *praesidium* Akantha could be if one identifies Sabelbi with Qattar, unless Akantha is the same site as the well of Akanthion (once called Ἀκανθα) mentioned in the ostraca from Mons Claudianus and the eponym of a road.¹⁶⁴ Is there a road linking Claudianus to the region of Umm Balad? The possibility of such a route exists: after crossing the sand-sea that

spreads NW of Claudianus, one enters the mountains, then bears SW towards Umm Shejilat (26° 56' 36" N/33° 14' 53" E); 1.5 km NE of this little quarry, one follows up a NS wadi towards Qattar. There Meredith's map has a well called Bi'r Umm Disi, invisible on the satellite photo. However, I do not think that this discreet well could be the remnants of the Akantha of *O.Claud.* and *O.KaLa.* In the *O.Claud.*, the Akantha provides water for Mons Claudianus (§ 179): Bi'r Umm Disi is too far away for that. On the other hand, the Akantha in the *O.KaLa.* is under the command of a curator: it must have been a fortified well, in other words a *praesidium*, which would have left traces. Akantha still exists in the third century: it is mentioned in several of the ten letters of the small archive of the centurion Caninius Dionysios, who seems to have had a short-lived stay in the *praesidium* of Umm Balad at the time.

- 171 Ἀκανθα inflects. Unlike for the well named τὸ Ἀκάνθιον in *O.Claud.*, the use of the article in front of Ἀκανθα is variable and appears to depend on individuals or perhaps the date.
¹⁶⁵ Turranus, author of many letters during the first phase of Umm Balad, uses the article, which is absent in three letters (of two different writers) from the 3rd century archive of Caninius Dionysios.

6. Conclusion on the toponymy of the *praesidia*

- 172 Among the names of Greek and Latin *praesidia*, some are declinable, others are fixed in the genitive; these are underlined in the table below:

Table 5

	noun	adjective
appellative	Ἀκανθα, Δίδυμοι, Καμπή, Κροκοδιλώ, Νιτρίαι, <u>Πράκου</u> , Φοινικῶν	Ξηρόν, Φαλακρόν
2 appellatives (noun + adjective)	Ξηρόν Πέλαγος, Μέλαν Ὄρος, Θῶνις Μεγάλη	
proprial	<u>Ἀφροδείτης</u> / Ἀφροδείτη, <u>Διός</u> , <u>Ἀπόλλωνος</u> , <u>Σιμίου</u> , <u>Πέρκου</u>	Μαξιμιανόν

Names of the *praesidia*

- 173 It appears from this table that the names of *praesidia* which remain in the genitive are proprial names (theonyms and anthroponyms), Πράκου being the exception. In the case of Ἀπόλλωνος, the fossilization of the genitive comes from the abbreviation of Ἀπόλλωνος Ὑδρευμα, but this explanation does not account for Διός and Ἀφροδείτης, where it is known that the *praesidium* was not founded on the site of an old well whose compound name would have been retained. These genitives are, therefore, understood as complements to the term πραικίδιον even if this noun, unlike Ὑδρευμα, is practically never used as generic constituent in a complex toponym (§ 162).
- 174 In three cases, the names of *praesidia* are unique adjectives. Μαξιμιανόν, a proprial adjective, agrees with the implied generic πραικίδιον; in the case of Ξηρόν, the noun understood is not πραικίδιον but Πέλαγος, which is also not always omitted and which

has the distinction of being a generic element “transferred,” i.e. referring to a another topographic object that it names. Φαλακρόν also cannot refer to a πραικίδιον, but probably to a noun meaning “mountain;” so this is probably another example of transferred generics, but always omitted, at least in the documentation that we have.

VI. Wells (*hydreumata*)

- ¹⁷⁵ Misled by the text of Pliny and some complex toponyms which include the generic Ὑδρευμα, modern scholars have long identified the fortlets of the Eastern Desert as *hydreumata*, from where, for example, comes the unfortunate name “the Hydreuma” for the small fort of Mons Claudianus, although it has no well (§ 156), as it was long believed that *hydreuma* meant any water point, whether it was a well or a tank. This is not so: the ostraca of the Eastern Desert have shown that this term, peculiar to Greek spoken in Egypt, only meant a well. In the Eastern Desert, a water-tank is ὕδρεία and, in Roman times, λάκκος.
- ¹⁷⁶ The *hydreumata* listed below are isolated wells, not integrated in any *praesidium*. In the ostraca from Umm Balad, a single well (which has not been identified in the field) seems to correspond to this definition: Καρδάμητον is designated as τὸ Καρδαμήτου Ὑδρευμα in O.KaLa. inv. 747. This name is found in four ostraca. It is a hybrid, made from the Greek κάρδαμον, “cress”, and the Latin suffix *-etum*, which serves to form collective nouns.¹⁶⁶ Καρδάμητον, therefore, means “watercress bed,” a feature that is difficult to imagine in the desert. Unlike τὸ Ἀκάνθιον, Καρδάμητον is never used with the article, perhaps because the speakers did not see this strange hybrid as a common noun: Ἐν Καρδαμήτῳ (O.KaLa. inv. 307), εἰς Καρδάμητον (O.KaLa. inv. 850).
- ¹⁷⁷ All other *hydreumata* addressed in this section are mentioned in ostraca from Mons Claudianus, with one exception, that we can no longer locate. One of them was perhaps the well of Wadi Umm Diqal,¹⁶⁷ located in the middle of a quadrangle, which is 3.4 km from the *praesidium* of the Wadi Umm Husayn, when one uses the way that passes in front of the “Hydreuma.” The exception is the *Hydreuma Traianon Dakikon*, which was sunk at the time of Trajan, a few metres west of the *praesidium* of the Wadi Umm Husayn. This honorary toponym (the only one in our corpus) is known from two inscriptions:
- Ὑδρευμα εὐτυχέστατον Τραιανὸν Δακικόν / *fons felicissimus Traianus Dacicus* (altar I.Pan 37, AD 108/109)
 (Ὑδρευμα εὐτυχέστατον) Τραιανὸν Δακικόν / *fons abundans aquae felicitis Traianus Dacicus* (lintel in the room of cisterns, SEG XLII 1574)
- ¹⁷⁸ These inscriptions were probably engraved for the inauguration of the well by the prefect Sulpicius Similis who came in person. The altar-inscription, on the podium of the Serapeum, has been known for long, but has now been destroyed. The other text is engraved on the lintel of the door of the cistern room, and was discovered during the 1991 season inside the *praesidium* (Fig. 30). Jean Bingen, the editor of the lintel inscription, considers Τραιανὸν Δακικόν/*Traianus Dacicus* as the name of the well, to the exclusion of the rest (Ὑδρευμα εὐτυχέστατον, *fons felicissimus*, *fons abundans aquae felicitis*) which he calls a “qualification”.¹⁶⁸ The structure of this toponym, however, is not unusual: generic (Ὑδρευμα/*fons*), followed by an accumulation of specifics with a variant in Latin. For lack of space, the stonecutter has omitted Ὑδρευμα εὐτυχέστατον and placed in the centre as a common factor *fons abundans aquae felicitis*, while the last two specifics expressing loyalty

to the emperor were arranged on both sides in Latin and Greek. It is possible that this cumbersome toponym, that was not in common use, refers, through metonymy, to the whole settlement of Wadi Umm Husayn. This would explain why neither of the inscriptions were found next to the well proper. In the third century BC, another well-station of the Eastern Desert combines the idea of good luck with a dynastic name: τὸ Ἀρσινόης Εὐκαίρον ὕδρευμα, mentioned in several circulars found in Bi'r Samut.

Fig. 30



The lintel of the room of cisterns at Mons Claudianus.

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179 Τὸ Ἀκάνθιον, Ἀκανθα, “the Acacia”

Several Trajanic ostraca from Mons Claudianus mention a well, where trains of camels went to fetch water, normally called τὸ Ἀκάνθιον (always with the article), and once, in a Greek letter written by a Latin-speaker, Ἀκανθα (no article and not declined: εἰς Ἀκανθα, O.Claud. II 362). The money account O.Claud. inv. 3819 ends with the order: ἔρχου ἰς τὸ Ἀκάνθιον τὸ ὕδρευμα. This is the only instance where that toponym explicitly refers to a well.

180 A road was called after this well, according to two passes sent to *stationarii* / *epiteretai* [ὁδοῦ] Ἀκανθίου (O.Claud. I 77 and 81); ὁδοῦ is restored each time, but this seems to be a necessary restoration. It must be a secondary path leading from Claudianus to this well.

181 The well of *Dioskoureia*

The letter O.Claud. inv. 490 concerns a case of a diverted waterskin, in which “the men at the well of the Dioskoureia” (οἱ ἐκ τοῦ ὕδρευματος τῶν Διοσκορίων) are involved. According to this ostrakon, water was transported from this well to water the horses accompanying the *poreia*, i.e. the caravan periodically provisioning the *metallon*. The toponym is also attested in the great Trajanic water-chart¹⁶⁹, where it appears among the names of sites and quarries receiving water rations: *latomiai*, loading ramps (κρηπίδες) of *latomiai*, steelworks (στομωτήριον) and a watchtower (σκόπελος). The names of the supplied sites are in the dative, and so is Διοσκορίοις, which probably refers to the *hydreuma* of the *Dioskoureia* in the letter, but as water is sent there, the well must be under construction. A further probable instance of the toponym appears in O.Claud. inv. 7955.

O.Claud.inv. 7955 (Fig. 31)

Trajan

Well – S1 C-W 4

8 x 6,5 cm

Nile silt clay

Upper right corner of a letter, perhaps unfinished, written by an anonymous curator who broke off when he saw an error in the prescript, for which we do not have a similar formula. Should we restore ἐν (τοῖς) Διοσκορίοις? But what came before?

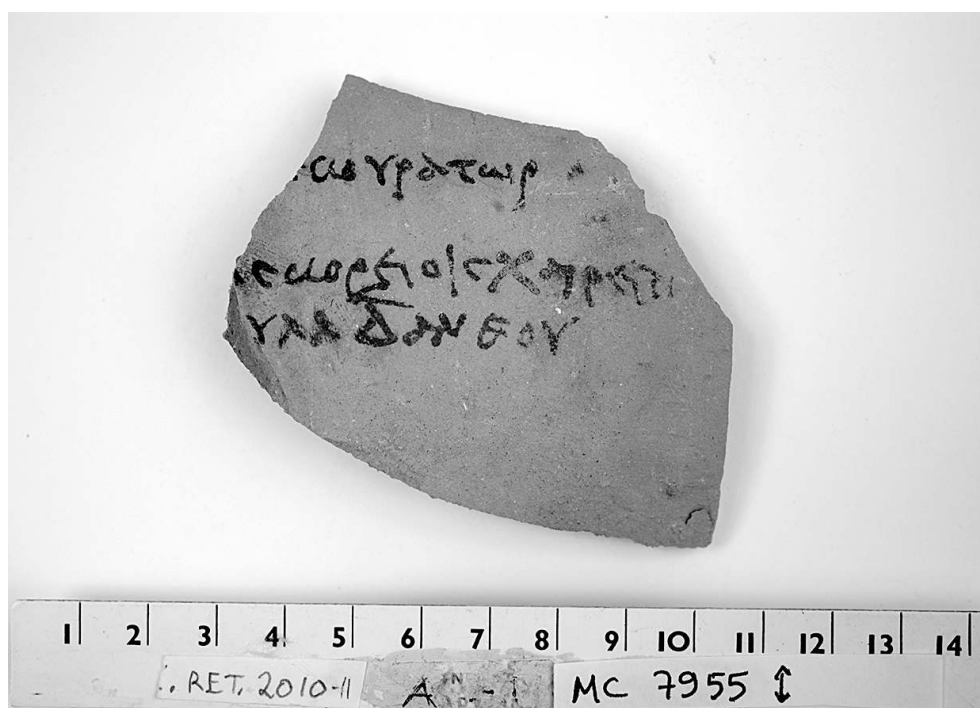
↓]ς κουράτωρ

vac.

-- Διοσκορίοις χαίρειν

-- ξύλα δ' ἄνθ' οὐ vac.
] vac.

Fig. 31



O.Claud. inv. 7955.

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182 Κατίου, the well of Cattius

Mentioned in the Trajanic corpus, but also in later ostraca. Κατίου is either the name of a well, or rather perhaps that of a sector of a *metallon* where there was also a well. Besides the entry ὕδρευματι Κατίου in *O.Claud.* IV 700, 10 (Trajanic), an account of workers broken down by assignments, and *O.Claud.* inv. 3114, where Kattiou is a place whence camels are returning laden with water, one notes also the phrase τὰ Κατίου (with a variant τὸ Κατίου) or τὰ Κᾶτῶλου [μέ?]ρη (*O.Claud.* IV 760, but, there, I consider the dotted letters as uncertain, as well as the restoration). Kattiou is also a place to which extraction tools are sent. Occurrences of Κατίου are:

O.Claud. IV 697, 8 (Trajanic): account of workers broken down according to place or kind of work (often in the dative), including Κατίου.

O.Claud. IV 746 (Trajanic), a note appointing a certain Leonides εἰς τὸ Κατίου (implying ὕδρευμα?).

O.Claud. IV 632, 1-2 (Trajanic): εἰς τὰ Κατίου is tempting (see *O.Claud.* IV 757), although there seem to be marks after τὰ (Fig. 32).

Fig. 32



O.CLAUD. IV 632, 1-2.

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O.Claud. inv. 2853, 1 (Trajanic): water-chart of the same series as the inv. 1538. The first section, which concerns blacksmiths' rations distributed to various stations, includes [the loading ramp (κρηπίς)], the Mese quarry, steelworks (στομωτηρίω) and Καττίου.

O.Claud. inv. 3114 (Trajanic): report on the movements of water-transport camels; 76 camels, loaded with water, came from Kattiou.

O.Claud. IV 797 (Trajanic): note about the sending of tools εἰς Καττίου.

O.Claud. inv. 3342 (Trajanic), acknowledgment for a skin; the ticket written in charcoal was pre-written in ink with the place of origin of the skin (ἀπὸ Καττίου) and the date.

O.Claud. IV 757 belongs to a series of daily activity reports (Antonine); on that day, 1st Epeiph, workers cleaned the trench of the column which was being extracted in Kattiou's sector: τοῦ εἰς τὰ Καττίου τύλ(ου). O.Claud. IV 760, mentioned above, is the only other example of Καττίου during the Antonine period. There is no indication at this time that the well was still working.

- 183 The topographic feature which Kattiou refers to is not clear. Used on its own, could Καττίου perhaps be considered as a name of λατομία or as the abbreviation of the phrase ὕδρευμα Καττίου? Does τὰ Καττίου mean "Cattius' sector" or perhaps, for short, "the sector (of the well) of Cattius"? Because the names of the other wells are not drawn from an anthroponym, I suggest that Καττίου was the name of an area, before being that of the well drilled there.

- 184 Καλαεῖς

This name, possibly Semitic and indeclinable (εἰς Καλαεῖς, ἀπὸ Καλαεῖς) is only attested in Trajanic reports on the movements of the camels entitled ἀπόλογοι ὕδροφορίας.¹⁷⁰ At Salaeis, there was a well where camels were sent to fetch water.

Conclusion on the toponymy of wells

- 185 None of the names of these peripheral wells is a complex toponym with the postpositioned generic ὕδρευμα (cf. Ἀπόλλωνος ὕδρευμα). They are indicated either by means of a phrase where the toponym, in the genitive, is a complement to ὕδρευμα (τὸ Καρδαμήτου ὕδρευμα, τὸ ὕδρευμα τῶν Διοσκορείων) or by appending ὕδρευμα to a toponym, the use of articles following the rules of apposition (τὸ Ἀκάνθιον τὸ ὕδρευμα, cf. § 21). If they are used without ὕδρευμα, the well names are declinable, except the one that is taken from an anthroponym, Καττίου.

VII. Roads

- 186 In the road-names of the Eastern Desert, the generic constituent ὁδός, contrary to πόλις, κώμη, ὕδρευμα, precedes the specific. The latter, except the particular case of the *via Hadriana*, is either the name of the terminal of a road in the genitive (usually its destination from a reference point situated in the valley),¹⁷¹ or a proprial adjective derived from that name. In the first case, ὁδός is followed by the name in the genitive of the *metallon* or seaport. The second case conforms to Latin usage, where the use of an adjective is preferred when forming a complex toponym which contains a generic.¹⁷²
- 187 The road from Kaine to Mons Claudianus is called ὁδὸς Κλαυδιανοῦ in three passes issued by the centurion Antoninus, but ὁδὸς Κλαυδιανῆ only in one pass issued by the centurion Accius Optatus.
- 188 The road from Kaine to Porphyrates is called ὁδὸς Πορφυρίτου (no adjectival variant). Unlike Claudianus, the Greek noun Πορφυρίτης normally cannot be used directly as an adjective: the corresponding adjective is πορφυριτικός. The phrase ὁδὸς πορφυριτική, though grammatically correct, is not attested, but we find the adjectives πορφυριτικός and Κλαυδιανός in a toponymic phrase in AD 214/215: τοῖς Πορφυρειτικοῖς καὶ Κλαυδιανοῖς μέταλλοις.¹⁷³
- 189 The road from Koptos to Myos Hormos is sometimes called ὁδὸς Μυκόςμου, sometimes ὁδὸς Μυκορμιτική: the use of a derivative adjective, although in this case with a Greek suffix, perhaps betrays the Latin influence.
- 190 The road to Berenike is always written as ὁδὸς Βερενίκης, with the sole exception of Βερνικηία ὁδός in O.Dios inv. 457 (AD 219), where the order of the terms is unusual for a road-name. The suffix -ήσιος serves to transpose into Greek the situative Latin suffix -ensis. This suggests that, in Latin, the road was called *via Berenicensis*.
- 191 In *O.Claud.* I 77 and 81 [ὁδὸς] Ἀκανθίου is probably a small road, from Claudianus, to one of the wells on which it depended for its water supply, the Akanthion (§ 179).
- 192 The Latin name of *via Hadriana* was formed in the Medieval period using the only evidence of this toponym, which appears only in Greek in the dedication of this road, inscribed on a pedestal erected in Antinoou Polis (*I.Pan* 80, 8): ὁδὸς Καινὴ Ἀδριανή. The inscription shows that, in the mental representation of the developers of the *via Hadriana*, the orientation of the road was reversed compared to other roads of the Eastern Desert, since its destination was not Berenike, but Antinoou Polis: ὁδὸν Καινὴν Ἀδριανὴν ἀπὸ Βερενίκης εἰς Ἀντινόου.

VIII. Ports of the Red Sea

1. Berenike, Berenicis and Mons Berenicidis

- 193 The southernmost area of the Egyptian Eastern Desert took the name Desert of Berenike in about 4 BC, once the Romans had revived the Ptolemaic port of Berenike and built a new road from Koptos to that port. The term “Desert of Berenike” is abundantly attested. In Greek, it is ὄρος Βερενίκης. In Latin, one encounters the expression in inscriptions mentioning the Prefect of Berenike and we see that the name of the city was then, with

one exception, suffixed by *-is*. We find once *praefectus praesidiorum et montis Beronices*, but three times *praefectus Montis Berenicidis* or simply *praefectus Berenicidis*. There is also the ablative *Berenicide* in the large inscription from Koptos commemorating the construction of water-tanks by the army (ILS 2483= I.Portes 56).¹⁷⁴ However, the port of Βερενίκη on the Red Sea was never called Βερενικίς in Greek. There is a parallel phenomenon with Βερενίκη in Cyrenaica, which is called *Berenicis* in the *Pharsalia* of Lucan (9.524) and in the *Punica* of Silius Italicus (3.249).¹⁷⁵ Editors justify this discrepancy considering that *Berenicis* is suffixed following the model of choronyms such as Ἀργολίς, Μεγαρίς, Περγίς, where the generic γῆ or χώρα is elided.¹⁷⁶ The suffix *-is* would mean that the referent is not the city alone, but the city and its *chora*. I admit that it would provide a very satisfactory solution in the case of the title *praefectus Berenicidis*. This is probably the reason why F. De Romanis interpreted the toponym *Berenicis* as a choronym in Latin inscriptions, which leads him to consider that the inscription ILS 2483 refers to the construction of a well in Berenice (i.e. the region of Berenike), and that this well is Καινὸν Ὑδρευμα, which is 25 km above Berenike.¹⁷⁷

194 However, we should abandon the idea that, in the case of Βερενίκη / Βερενικίς, the suffix *-ίς* denotes a choronym. In the *Peutinger Table* and *Ravenna Cosmography*, *Berenicide* clearly designates the end point of the road, not a region, and corresponds to *Berenike* in the *Antonine Itinerary*, which is more faithful to the Greek usage. Two toponyms of Arsinoïte, Βερενικὶς Θεσμοφόρου and Βερενικὶς Αἰγιαλοῦ are examples of the suffix referring to simple villages, and not to districts. Therefore, it appears that, when *-ίς* is added to a dynastic anthroponym, it is to characterize it as a toponym, not to designate a region. The example of the two villages shows that when a settlement was called after a Queen Berenike, the naming authorities had the option of keeping the name unchanged, or of adding a suffix to emphasize that this was a toponym.¹⁷⁸ In the case of the port of Berenike, there was a degree of fluctuation in Latin, but not in Greek. Frédérique Biville, whom I consulted on this Latin initiative to add a Greek suffix to a Greek base where the Greek model never appears to have a suffix, replied: “It is not surprising, I think, that there were Latin-speakers who felt the need to over-characterize the name *Berenike*: we also see that there is what could be called ‘the Greek of the Romans’, Greek forms and words created by the Romans, which are only documented in a Greco-Roman context.”¹⁷⁹

195 In the Greek and Latin names of the Desert of Berenike, the generic Ὀρος / *Mons* does not designate a mountain as in classical Greek or Latin, or as in the phrase *Mons Claudianus*, but it is a calque of the Egyptian *ḏw*.¹⁸⁰ Unaware of this Egyptian peculiarity, the editors of the latest edition of Ptolemy’s *Geography* resume the old idea that *Berenicidis mons* could be an alternative name for “Mons Smaragdus.”¹⁸¹ The Romans showed a double conservatism, first by reproducing, through the Greek, an Egyptian word, and secondly by maintaining the dynastic name of the port of Berenike (which is nothing exceptional). But they were highly innovative in renaming the region after this port so far out, while the desert was named during the Ptolemaic period by reference to Koptos, as shown by a Greek inscription from 130 BC, where it is called τὸ κατὰ Κόπτον ὄρος, literally “the desert adjacent to Koptos.”¹⁸² This expression is also the calque of the ancient Egyptian name *ḏw Gbtyw*. One can question this desire to put Berenike in the limelight at the expense of Koptos, while Roman Koptos was a thriving city with a monumental centre, whereas Berenike, devoid of an agricultural hinterland, was at the end of the earth. So much so that the governor of the Desert of Berenike was sometimes called, for short, the Prefect of Berenike, while its offices were at Koptos and he cannot often have come to

Berenike. The idea behind the name was to suggest that Berenike, rather than on the borders of the empire, was now at the centre of a zone of Roman influence that extended well beyond it. There was perhaps some truth in this view, when we consider that, at least under Antoninus Pius, but perhaps even before, the Romans had a military base in the remote Farasan Islands.

2. Origin of the toponym Myos Hormos

- ¹⁹⁶ Myos Hormos¹⁸³ is a Ptolemaic foundation, but its picturesque name contrasts with the series of dynastic names conferred to Ptolemaic port foundations on the Red Sea. Agatharchides of Knidos (*floruit* c. 150 BC) attributes an alternative name to it, Ἀφροδίτης ὄρμος, which, according to the version of his treaty on the Red Sea transmitted by Photius, was substituted, in his time, by the original toponym: ἐφεξῆς δὲ λιμὴν μέγας ἐκδέχεται, ὃς πρότερον μὲν Μυὸς ἐκαλεῖτο ὄρμος, ἔπειτα δὲ Ἀφροδίτης ὀνομάσθη, “immediately after, there comes a major port formerly known as the anchorage of the Mouse and which was called afterwards the anchorage of Aphrodite” (Phot., *Bibl.* 250.81). If we are to believe Agatharchides, this port offers a case of competition between a spontaneous, popular naming and one that has a more formal flavour and would have temporarily replaced the first. Μυὸς ὄρμος was definitively imposed during the imperial period. In most of its occurrences in the ostraca from Krokodilo, the complex toponym Μυὸς ὄρμος has become a compound, Μύσορμος.¹⁸⁴ The alternative name Ἀφροδίτης, of which one no longer hears in Roman times, remains an enigma: on what occasion and why would the toponym have been changed?
- ¹⁹⁷ In versions of the treatise passed down by Diodorus Siculus (which mentions only the theotoponym) and Strabo, we also learn that the entrance to the anchorage is curved: ... κεῖται λιμὴν σκολιὸν ἔχων τὸν εἴςπλουν, ἐπώνυμος Ἀφροδίτης (DS 3.39.1); εἴτα Μυὸς ὄρμον ὃν καὶ Ἀφροδίτης ὄρμον καλεῖσθαι, λιμένα μέγαν, τὸν εἴςπλουν ἔχοντα σκολιόν (Str. 16.4.5). Note that the word translated as anchorage, ὄρμος, can be used figuratively to mean “refuge.”
- ¹⁹⁸ Scholars have been intrigued by the name Μυὸς ὄρμος. In the nineteenth century the Egyptologist H. Brugsch, followed by F. De Romanis, tried to explain it through the corruption of the Egyptian toponym *msj* contained in the list of foreign peoples of Tutmosis III at Karnak. Not being an Egyptologist, I will not dwell on this hypothesis that implies that Myos Hormos would have been a very old foundation, for which there is no archaeological evidence. Other researchers have proposed that in this toponym, the Greek word μῦς (genitive μυός), “mouse,” took on one of its other meanings, “mussel,” which would make more sense for a coastal town.
- ¹⁹⁹ The map of the port published by the British mission of David Peacock and Lucy Blue suggested another hypothesis to me, which I have already presented in the article *Myos Hormos of The Encyclopaedia of Ancient History*: Myos Hormos had the distinction of having been built in an inland lagoon, now silted up. This lagoon was connected to the sea through a narrow opening where the coral-reef was interrupted because of the fresh water of the wadis floods that poured into the lagoon. The ships had to go through a curved channel, a feature described by Agatharchides of Knidos in such a way as to suggest that it was a striking sight for the eye witness. I think the image behind the name Myos Hormos is that of boats sneaking like mice into a small hole to find refuge. Some

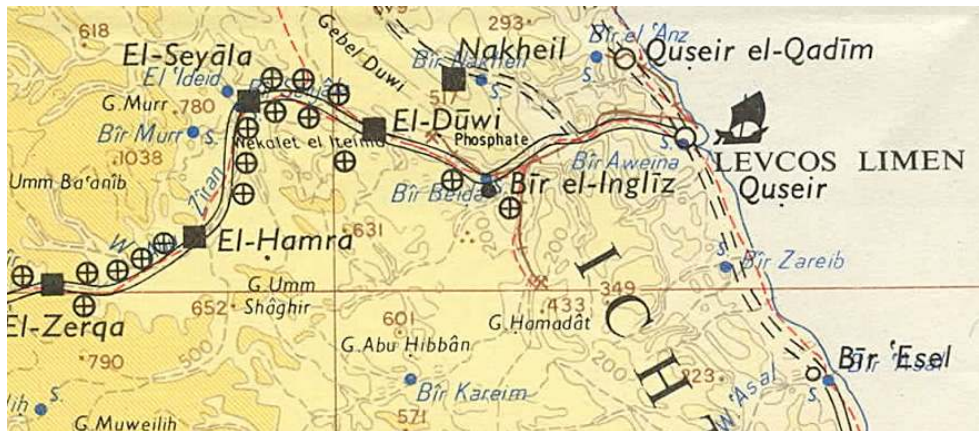
types of light ancient ships were, indeed, named after the mouse, such as *myoparon* or *musculus*.¹⁸⁵

- 200 From the compound toponym Μύκορμος, known through the ostraca of the *praesidia*, is derived the adjective Μυκορμικός, employed as a specific in the road name ὁδὸς Μυκορμική. The existence of a demonym Ὀρμίτης evidenced in the form Ὀρμίτω in *P.Ber.* II 129, 22 and which refers to Myos Hormos, is hypothetical.

3. Philotera, Philoteris and the *Philoterion*

- 201 Ancient writers mention a port on the Red Sea, named after a sister of Ptolemy Philadelphus and founded by Satyrus, an explorer of the Trogodytike for capturing elephants.¹⁸⁶ Stephanus Byzantius (*Ethnica*, ed. Meineke, p. 666) reports that besides Φιλωτέρα, the suffixed form Φιλωτερίς is known, which was retained by Pomponius Mela, *Chorogr.* 3.80.¹⁸⁷ Pliny, *Nat.* 6.168, cites *Philoterias*¹⁸⁸ as an alternative name for an *oppidum parvum* otherwise known as *Aenum*. Ptolemy places Φιλωτέρας λιμὴν directly south of Myos Hormos (*Geogr.* 4.5.14), whereas for Artemidorus and Pliny, Philotera is at the north end of the Gulf of Suez. Ostraca found in Myos Hormos and, to a lesser extent, at Maximianon and Krokodilo, show that the memory of the Ptolemaic princess remained significant in the area of Myos Hormos. Ostraca from Myos Hormos mention both a port called Philoteris (a boat went there from Myos Hormos) and a *Philoterion* (preceded by the definite article): are the two mixed up? Or was the *Philoterion* the temple of which scarce remains were found at Qusayr, a few kilometers south of Myos Hormos? Or is it the temple erected at the mining site of Bi'r Karim, where one of the wells was still supplying water to Qusayr in the nineteenth century?¹⁸⁹ These hypotheses are discussed in the article by W. Van Rengen, who also uses as evidence the letters on ostraca found at Maximianon including *proskynemata* to the goddess Philotera. Where do these letters come from? Considering that these *proskynemata* to Philotera matched those to Athena contained in the letters from Persou (Bi'r Umm Fawakhir), we considered at the outset that the letters citing Philotera were written in the *praesidium* that came after Maximianon in the direction of Myos Hormos, presumably the Simiou of our ostraca, if we accept the Ptolemaic origin of this toponym (it would derive from the name of the explorer Simmias).¹⁹⁰ Although the *aedes* of that *praesidium* could have been called a *Philoterion* (thus, the *aedes* of Xeron, a fortlet where epistolary *proskynemata* address Athena, is called “the *Athenadion*” in a report on a nighttime incident), it is unthinkable that a military chapel enjoyed such fame that it was spoken of at Myos Hormos. The *Philoterion* was a larger feature; the name of the temple may have been extended by metonymy, to the place where it was. To evidence of *Philoterion* in the Myos Hormos ostraca we can add a letter found in Maximianon, which also contains one of these *proskynemata* before Philotera.¹⁹¹ It is, unfortunately, very fragmentary, but it suggests that letters arriving at Maximianon with *proskynemata* before Philotera may not have been written in a *praesidium* on the road, but at *Philoterion*, wherever it might be. Bi'r Karim would not be a bad candidate: located south of the *hodos Mysormitike*, it is the same distance from Maximianon as Bi'r Sayyala (Simiou according to us) and the topography allows one to reach Maximianon without having to go round the mountain (Fig. 33).¹⁹² The surface ceramics date from the Roman period,¹⁹³ but there are traces of Ptolemaic occupation.¹⁹⁴

Fig. 33



Maximianon (al-Zarqa' hamza) Myos Hormos, Bī'r Karim (from Meredith 1958).

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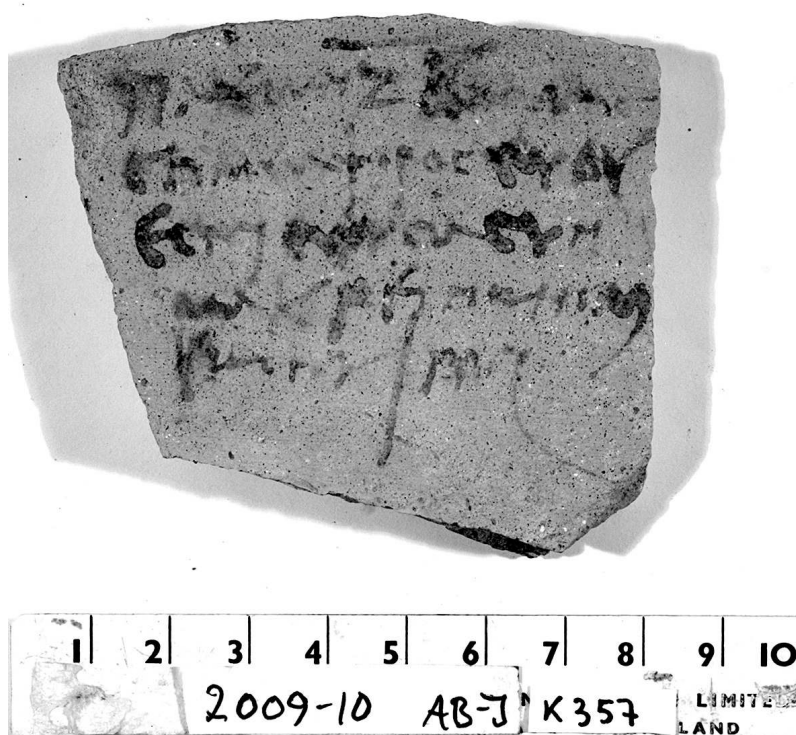
- 202 The toponym Philotera / Philoteris does not appear in the ostraca of the *praesidia* except perhaps in O.Krok. I 46, 6, a fragment of a *liber litterarum* which reads -ελ]ηλϑέναι ις Φιλ[.
- 203 Finally, it should be noted that the name Philotera, which is not common in Roman Egypt, is carried by a young woman from the circle of Philokles, a food supplier and pimp who operated in the time of Trajan in the *praesidia* of the northern part of the Desert of Berenike.

IX. Unidentified topographic features

204 Ἴππος

O.Krok. I 120 is an activity report dated 7th Pachon and written in the first person by K---s, a *signifer*, who is said to be going on reconnaissance with the cavalryman Marinus ἔωϑε τῷ Ἴππῳ. The infrared photograph made since the publication failed to provide a more accurate reading, but neither did it challenge it (Fig. 34): it remains possible and even quite probable. Since these daily notes are usually prepared by the *curator praesidii*, and since *signifer* is the only rank we know of for this non-commissioned officer, K---s is probably the *curator* himself, who took with him one of the cavalrymen of his garrison. Perhaps τοῦ ἵππου must be taken merely as a common noun (a cavalryman was attacked between two *praesidia*, the corpse of his horse left behind became a temporary landmark). However, we can read in an ostrakon from Maximianon, in a lacunose context, ἐμὲ ὄντα ις ἵππου πετρ[α], “me being at Hippou,” or, if we restore πέτρ[αν], “at Hippou Petra,” “the horse rock” (Fig. 35).

Fig. 34



O.KROK. I 120.

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Fig. 35



O.MAX. INV. 1099, 7.

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205 Κάνωπος

Address of the destination of a letter found in Didymoi (εἰς Κάνοπον, *O.Did.* 370, 1).

206 Ξηρὸν Πέλαγος

Homonym of a *praesidium* on the Berenike road, this site, probably near Mons Claudianus, is mentioned in three ostraca from the Trajanic period. One of them, *O.Claud.* I 141, gives the impression that it is a quarry. The author of the letter says that he passed Xeron Pelagos, where he met the centurion Crispus and another man who told him: κατασπῶμεν τὸν λουτήρα, “we brought the tub down.” The reading of the *editio princeps* has been corrected, cf. *BL* XI 294 sq., where the verb has, however, been misunderstood. It is not about knocking down, *i.e.* starting the exploitation of the Louter quarry in Mons Claudianus, but bringing down a sink or tub from the quarry at Xeron Pelagos; the meaning of κατασπᾶν and of the deverbative κατάσπασις is ascertained through several ostraca from Umm Balad (e.g. *P.Worp* 50, 11-12).

- [illegible]

X. Conclusion

1. Place and preterition of the generic element

- 213 Generics to be considered in the analysis of the toponyms of the Eastern Desert are: ὀδός, λατομία, μέταλλον, ὄρμος, ὄρος, πραικίδιον, ὕδρευμα. They do not all behave in the same way in the formation of names: ὀδός is necessary, while elision is almost the rule for μέταλλον and πραικίδιον except in the title of the *curatores*; some generics (λατομία, ὄρμος, ὕδρευμα) may, like πόλις or κώμη, be placed after the specific to form a complex toponym (which I have chosen to highlight using the uppercase).
- 214 Ὀδός and Ὄρος normally precede the specific element which, except in the case of the *via Hadriana*, is a city name in the genitive. Ὀδός is never omitted.
- 215 The toponym Ὄρος Βερενίκης and its Latin equivalent *Mons Berenicidis* / *Berenikes* have the particularity of being shortened in two ways: as part of the title of the territorial prefect, it can be reduced to one or the other of its two components: ἑπαρχὸς Ὄρου Βερενίκης, ἑπαρχὸς Ὄρου, ἑπαρχὸς Βερενίκης. The latter formula, which is ambiguous, is the least common; it may be early: of the four examples, all epigraphic, two are dated from the time of Augustus and Tiberius, respectively.¹⁹⁸ Such metonymies are characteristic of administrative denominations (cf. the ancient city-states, and today Quebec or Mexico). When Ὄρος / *Mons* is used alone to mean “Desert (sc. of Berenike),” it

can be considered as an “appellative” in the narrow sense fit for toponyms.¹⁹⁹ In toponyms, elision of the specific is normally encountered only in a local and familiar context. It is, therefore, remarkable that the term ἑπαρχος Ὀρους was used in official contexts and even outside the desert (petition *P.Turner* 34; ἐπίτροπος Ὀρους in the dedication from Koptos *I.Portes* 86).

- 216 Usually omitted, except in the title of curators, μέταλλον and πραικίδιον²⁰⁰ are not included in the toponym with two exceptions.²⁰¹ They always precede the specific element: κουράτωρ πραικιδίου Μαξιμιανού, κουράτωρ μετάλλου Κλαυδιανού, εἰς πραικίδιον Μαξιμιανόν.²⁰²
- 217 Λατομία and ὕδρευμα may be placed after the specific. A complex toponym thus formed is sometimes abbreviated. This is the case with Ἀπόλλωνος / Ἀπόλλωνος Ὑδρευμα, but it never happens when the specific component is an adjective (Καινὴ Λατομία, Καινὸν Ὑδρευμα are never abbreviated to Καινή, Καινόν).
- 218 When a complex toponym is abbreviated, it is the second element that goes (Ὀρος Βερενίκης → Ὀρος,²⁰³ Ἀπόλλωνος Ὑδρευμα → Ἀπόλλωνος, Ἀφροδίτη(ς) Ὀρους → Ἀφροδίτη(ς), Ξηρὸν Πέλαγος → Ξηρόν).
- 219 Unlike Ἀπόλλωνος Ὑδρευμα (or toponyms with Πόλις), Μυός Ὀρμος is never abbreviated to Μυός. However, it often becomes a compound and while the expected form should be *Μύορμος, we have Μύκορμος (and the adjective Μυκορμιτικός).
- 220 When Ἀπόλλωνος Ὑδρευμα is abbreviated, Ἀπόλλωνος remains in the genitive, which is not the case for λατομία Ἀπόλλωνος at Mons Claudianus: when the generic is elided, the specific theophoric (as well as the anthropophoric) inflects. The rule is, therefore, different for λατομῖαι and πραικίδια. Indeed, if we compare λατομία Ἀπόλλωνος with the similar phrase πραικίδιον Ἀφροδίτης, we see that Ἀφροδίτης remains (mostly) in the genitive when πραικίδιον is omitted.

2. The use of the article

- 221 Analysis of the use of the article with toponyms is complicated by the scarcity of examples and by the flexibility of use. Even when the rule is that a toponym takes the article, it tends to be omitted after a preposition (this is not unique to toponyms, but all nouns),²⁰⁴ especially in documents where brevity is favoured, namely lists and accounts.
- 222 For obvious reasons, most of our topographic features are not included in the pages that Mayser²⁰⁵ dedicated to the use of the article for toponyms (countries and islands, towns and villages, mountains, rivers, sanctuaries, urban neighbourhoods, squares, etc., which rank in the category *Lokalnamen*).
- 223 Let us revisit the observations of Mayser:

Table 6

countries, regions	– countries: use <i>ad hoc</i> ; generally with Ἀσία or Αἴγυπτος, exceptionally with Αἰθιοπία – Egyptian nomes: always the article
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towns, villages	do not take the article. Exceptions: – in the case of the repetition of a toponym (anaphoric article) – when the toponym is a generic appellative, it may take the article – in an abbreviated phrase, a complex toponym sometimes takes the article – foreign toponyms sometimes take the article
mountains, rivers	take the article, which can be omitted after a preposition
microtoponyms (urban areas, temples, squares)	take the article, also after a preposition (except in a concise style)

USE OF THE ARTICLE BEFORE TOPONYMS

- 224 What do we observe in the Eastern Desert? The article is used more easily before toponyms that are or contain common nouns. The impression emerges that the article is stronger in the Ptolemaic ostraca from Bi'r Samut where, even after a preposition, αἱ Πύλαι and τὸ Καπαρ always take the article, and Ἡράκλεις almost always, which suggests that these places were sites of minor importance. In the Roman period, the names of *praesidia* behave like names of cities or villages, and do not normally take the article, even when they are common nouns; though there is an exception, in the case of εἰς τὴν Καμπήν and especially Ἀκανθα in ostraca from Umm Balad: out of eight examples, four take the article.
- 225 The names of *latomiae* can take the article even if they are proper nouns (εἰς τὸν Διόνυκον). Usage is flexible for Πορφυρίτης and Κλαυδιανόν,²⁰⁶ perhaps because these *metalla* are treated as regions. The name of the small *metallon* of Καὶνή Λατομία almost only appears as the destination address on amphoric *tituli* (about 70 examples); we note only one example of εἰς τὴν Καὶνήν Λατομίαν (O.KaLa. inv. 435). Δομιτιανή (16 examples) is never preceded by the article.

3. The toponymic program of the Romans in the Eastern Desert

- 226 The Romans have profoundly marked the Eastern Desert. They excavated the mountains from where they extracted huge monoliths for monuments built by the emperors. They appropriated space by equipping it with roads lined with fortlets in order to make the desert passable for travellers, and to implant an effective communication system, keeping the Beduins in check. Nevertheless, their toponyms are simple, when compared with the warlike names that the pharaohs of the Middle Kingdom gave their *menenou* (strongholds) in Nubia: “Who subjugates Setyou,” “Who pushes Medjayou,” “Who secures foreign countries,” “Who kills the desert dwellers.”²⁰⁷ In Roman times, they relied more on the virtues of diplomacy than on the magical performative of words.
- 227 Neither did the Romans target a symbolic appropriation of space by replacing the existing names: they retained the old names, and even the dynastic Ptolemaic ones, even local cults that deified Ptolemaic princesses.

- 228 Most of the names are Greek or Latin, but some belong to other languages:
- Kabalsi?, *praesidium* on the road to Berenike;
 - Kompasi, *praesidium* on the road to Berenike, former gold mine dating back to the Pharaonic era;
 - Patkoua, *praesidium*, perhaps in Lower Nubia;
 - Thonis Megale, *praesidium*, perhaps in Lower Nubia (Thonis is an Egyptian word);
 - Raïma, *praesidium* on the road to Claudianus;
 - Sabelbi, *praesidium* on the road to Porphyrites;
 - Salaeis, a well close to Claudianus;
 - Senskis, presumably a district of Smaragdos;²⁰⁸
 - Tamostymis (Egyptian), mine or quarry in the area of Wadi al-Hammamat / Wadi al-Fawakhir.
- 229 One can add to this list the names of three *metalla* named after the material which was extracted and whose names belong to the language of populations who traditionally carried out the exploitation: Μαργαρίτης is a loan-word, borrowed from Pahlavi *marvārīt*, “pearl.” This word is attested for the first time in Greek by Theophrastus, who was on the lookout for discoveries made by the explorers of Alexander the Great. But the main pearl fisheries were in the Persian Gulf. Cυάργδος is an oriental word, already known by Herodotus, that applies to different varieties of green stones. Τοπάζιον / Βαζιον is the name of topaz and of St John’s Island where it was mined. Among these three toponyms, it is the only one that could have local origins, if we follow Pliny, who thinks that it is, according to Juba, a word borrowed from the language of the Trogodytes (*Nat.* 37.109).²⁰⁹
- 230 Exotic names mentioned in the ostraca, some of which are Semitic, raise an insoluble problem. It is not possible to decide if they belong to a Beduin substrate predating the arrival of the Romans, who would have chosen to keep the names, or if they were bestowed by Roman officers eastern origin. In favour of the former hypothesis, we should look at the recurring microtoponym τὸ Καπαρ, probably of Arabic origins, which refers, in ostraca from Bi’r Samut (third century BC), to a small site without a well, located in the vicinity of the Ptolemaic fort. Such toponyms probably betray the intervention of Beduin guides in the exploration of the desert by the Romans.
- 231 The Romans were moderate in their use of imperial eponymy, which they reserved for a few *metalla* and *latomiai*. Indeed, it was after a discovery phase of the physical geography of the Eastern Desert that they bestowed imperial names. The first *metalla* discovered were named after the material extracted from them, and the Romans gave thanks in Greek to the local Egyptian deity (Min) for the discovery of minerals. Apart from dynastic names, the toponyms they invented are apolitical, innocuous, and sometimes even rather bland (cf. the series of Kaine / Kainon).

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NOTES

1. This article has developed from a lecture presented on 13th April, 2013 as part of the interdisciplinary EPHE project "Lieux d'Égypte ou la toponymie égyptienne des pharaons aux Arabes" (2012-2014). I have been fortunate to benefit from a critical reading of my manuscript by Herbert Verreth, whom I thank for helping me with his many comments, and spotting many small blunders, omissions and inconsistencies; his judicious questions also helped me to clarify my thinking and deepen my reflection on some points. Naim Vanthieghem was kind enough to suggest to me a system that is both consistent and simple for the transcription of modern Arabic place names. Unless otherwise noted, all photographs were taken by Adam Bülow-Jacobsen, whom I also thank, as well as Mathilde Bru, for their help with the translation into English.
2. The ostraca are designated by a publication or an inventory number, preceded according to the provenance, by the abbreviations *O.Claud.*, *O.KaLa.*, *O.Krok.*, *O.Max.*, *O.Did.*, *O.Dios.*, *O.Xer.*, *O.Porph.*, *O.MyHor.* I thank Wilfried Van Rengen for allowing me to quote ostraca belonging to the two last corpora.
3. Excavations 2014-2016 funded by IFAO and MAE in the programme MAFDO now led by Bérangère Redon and Thomas Faucher.
4. I use the reference system of the latest edition of the *Geography*, which Germaine Aujac kindly drew to my attention: *Klaudios Ptolemaios Handbuch der Geographie*, Basel, 2006.
5. On the misinterpretations that were driven by the misunderstanding of *mons* and of the suffixed form *Berenicis*, see § 193-195.
6. On this *metallon*, see Sidebotham S.E., Barnard H., Harrell J.A., Tomber R.S. 2001, "The Roman Quarry and Installations in Wadi Umm Wikala and Wadi Semna." *JEA* 87, pp. 135-170.
7. On both sites, see § 27.
8. These gold mining sites that often betray activity in the Ptolemaic period have never been explored. They are conveniently catalogued and described by Klemm, Klemm 2013, in their section entitled "Middle Central Group," pp. 68-146. Nowadays, they are threatened by a project of intensive mining exploitation which will concentrate on the so-called Gold Triangle, that is to say the part of the Eastern Desert comprised between the Qena-Safaga road and the Quft-Qusayr road.
9. I published them in *O.Claud.* III.
10. *O.Claud.* III 528 and 587.
11. Cockle 1996.
12. Cuvigny H. 2002, "Vibius Alexander, *praefectus* et *épistratège* de l'Heptanomie." *CdE* 77, pp. 238-248.
13. *O.Claud.* IV 848 and 850.
14. *O.Dios* inv. 514.
15. List § 228.

16. O.Claud. inv. 6179.
17. O.Claud. IV 854, 3.
18. O.Claud. inv. 6366.
19. Commented on in the section *Praesidia* (§ 113-118).
20. Commented on in the section *Praesidia* (§ 115-117).
21. I.Pan 39: *Annius Rufus (centurio) leg(ionis) XV Apollinaris praepositus ab Optimo Imp(eratore) Traiano operi marmorum monte Claudiano (...)*.
22. This casual error is not rectified in the apparatus criticus of the edition.
23. Cuvigny H. 2014, “Le système routier du désert Oriental égyptien sous le Haut-Empire à la lumière des ostraca trouvés en fouille”. In *La statio. Archéologie d'un lieu de pouvoir dans l'Empire romain*, J. France, J. Nelis-Clément (ed.), Bordeaux, p. 254.
24. O.Claud. inv. 8094: letter from κουράτωρ πρεσιδ < ί > ω Κλαυδιανῶ (sic), where the writing betrays a Latin speaker; and O.Claud. II 372, letter of Aelius Serenus, who refers to himself as κουράτωρ πραισιδίου Κλαυδιανοῦ while in his letter O.Claud. II 371, which is in another hand, he is κουράτωρ Κλαυδιανοῦ μετάρλου.
25. Cockle 1996.
26. Πορφυρίτης Ὀρος (Redard 1949, p. 149).
27. The particular case of the “solid composition” Μύκορμος is not taken into account. It confirms a fact of popular pronunciation which removes the o of Μύός.
28. The emerald mines are called σμαράγδεια μέταλλα in Heliodoros, *Aethiopica* 10.11.1.
29. P. Flotté (*Carte Archéologique de la Gaule* 57/2. Metz, Paris 2005, p. 285) is hesitant about the reconstruction of *l/lagonam*, probably because epigraphic references to *lagona* (pitcher) are always graffiti on an object. Why couldn't it be, however, the effigy in porphyry of a *lagona*?
30. It belongs to a group of masculine and feminine nouns formed on a nominal base, and characterized by the suffix -ίτης for masculine, -ίτις, for feminine. These denominational derivatives, that have proliferated from the Hellenistic period, are frequently trade-names, terms of botany, zoology, geology and geography. Just think of the names of the Egyptian nomes: ὁ Ὀξυρυγχίτης νομός. The classic book about them is Redard 1949.
31. In principle, it should be derived from a base ὄφια. But cf. Chantraine 1933, p. 311: “The suffix [sc. -ατας -ητης -ατης] was sometimes extended to derivatives, although no base in long α was independently attested: πολίτης, “citizen”, is the normal derivative of πόλις in dialects other than Ionian-Attic, cf. πολιάοχος.” The form ὀφιῆτης is attested.
32. Dittenberger had previously proposed this idea (OGIS II 660, note 4). The toponymic use of the name of the material probably comes from a Greek usage: Pliny (Nat. 37.73.3) mentions an emerald deposit in Chalcedon, called *Smaragdites* (ὁ σμαραγδίτης e a duplicate of ἡ σμαράγδος): *mons est iuxta Calchedonem, in quo legebantur, Smaragdites vocatus*.
33. This was already the name of this *metallon* in the 3rd century BCE, according to an ostrakon from Bi'r Samut, which reads Ἐπὶ τὴν Μάραγδον (O.Sam. inv. 303).
34. On this deserted island off Berenike, today Jazirat Zabarjad, see J.-L. Fournet's contribution in these proceedings.
35. OGI II 660, note 6.
36. Ranson G. 1961, *Les espèces d'huîtres perlières du genre Pinctada (biologie de quelques-unes d'entre elles)*, Mémoires de l'institut royal des sciences naturelles de Belgique 67/2, pp. 11-12. On the distribution of pearl oysters in the Red Sea, see Donkin R.A. 1998, *Beyond Price. Pearls and Pearl-Fishing*, pp. 29-36.
37. Probably in the anthropological sense of Beduins, which the word also has in Greek, but not in the ethnic sense.
38. Has exploitation by the people of the desert ever stopped in between? The presence of the Roman army in the first and second centuries in the emerald mines is attested by the discovery

of elements of *lorica squamata* (Sidebotham, *et al.* 2008, p. 299). Have the Romans, when they took over the emerald mines, employed a Beduin task-force? Unfortunately, no ostracological discovery gives us clues about the composition of the workforce or the administrative framework. Local architecture is also a difficult issue: no fortified square building, but a multitude of small huts and several imposing official buildings. S.E. Sidebotham hypothesized that the large *praesidium* of Apollonos Hydreuma could house the garrison that controlled the exploitation of emerald mines (Sidebotham, *et al.* 2008, p. 301); but it is at a distance of 20 km from the village of Sikayt, a central inhabited area of one of the mining districts of Smaragdus, which consists of several. The modern name of Sikayt was suggested by Letronne from the epithet of Isis read by 19th century travellers on a rock inscription of the site, now destroyed (I.Pan 69). The best facsimiles, those of Nestor Lhôte and of Wilkinson are, respectively παρατηκυρι .ΙCΚΑΙΤΗCΕΝΕΚΕΙΤ .ΒΕΙ et παρατηκυρι .ΙCΙΔΙΤΗCΕΝCΚΕΙΤΗC . . . The conjecture παρὰ τῇ κυρίᾳ Ἰσιδι is reasonably safe; from the epiclesis which comes next, modern scholars deduced the toponym CΕΝCΚΙC, which would be the name of one of the exploitation areas of Smaragdus.

39. In the Erythrean area, the largest concentrations of *Pinctada radiata* are in Bahrain and Ceylon.

40. PEM 35: ἔκδέχεται μετ' οὐ πολὺ τὸ Cτόμα τῆς ΠερCικῆς καὶ πλεῖCται κολυμβήCεις εἰCὶν τοῦ πινικίου κόγχου.

41. Hamilton-Dyer S.H. 2006, "Faunal Remains." In *Myos Hormos-Quseir al-Qadim, Roman and Islamic Ports on the Red Sea. II. Finds from the Excavations 1999-2003*, D. Peacock, L. Blue (eds.), Oxford, p. 273.

42. Especially when you know that an average of 500 oysters have to be sacrificed to get a few pearls (Strack J.E. 2008, "Introduction." In *The Pearl Oyster*. Southgate P.C. and Lucas J.S., Amsterdam, p. 13). In the Red Sea, we find such shell dumps on the islands of Dahlak and Farasan, at a more southern latitude (Sharabati D. 1981, *Saudi Arabian Seashells: Selected Red Sea and Arabian Gulf Molluscs*, VNU, p. 53). We know that there was, under Antoninus Pius, a Roman garrison at Farasan, but the oyster deposits there are not ancient.

43. The two scenarios are possible: Schörle K. 2015, "Pearls, Power and Profit, Mercantile Networks and Economic Considerations of the Pearl Trade in the Roman Empire." In *Across the Ocean: Nine Essays on Indo-Mediterranean Trade*, F. De Romanis, M. Maiuro (ed.), Leiden, p. 48 sq.

44. Schörle o.l., p. 48.

45. Schneider P. 2016, "Did Rome Engage in Pearling in the Red Sea? A Re-examination of the Two Dedications by Publius Iuventius Agathopus." *ZPE* 198, pp. 121-137. Unlike P. Schneider, I have no problem admitting that the ancients were able to classify the pearl fisheries in the category μέταλλον because pearls are often likened by the authors to stones (λίθοι).

46. Aelian gives the impression that it is a product derived from crystal. For other hypotheses about the nature of this terrestrial Indian pearl, see *RE* XIV 1700 (which favours the hypothesis that it must be bamboo resin tears).

47. *The Roman Imperial Porphyry Quarries, Gebel Dokhân, Egypt, Interim Report 1998*, p. 26 (unpublished). Βατραχίτης is the only name of a latomia found in the O.Porph.

48. *Batrachitas quoque Coptos mittit* (Nat. 37.149). But in this passage, Pliny mentions gems, not an architectural material. *Quoque* is in reference to another gem exported by Koptos and that Pliny names the *balanites*: *Balanitae duo genera sunt, subviridis et Corinthii aeris similitudine, illa a Copto, haec ab Trogodytica ueniens, media secante flammea uena*, "As to the 'balanites', or 'acorn-stone', there are two varieties, of which one is greenish and the other like Corinthian bronze in its colour. The former comes from Coptos and the latter from the Cave-dwellers' country, and both are intersected through the middle by a bright red layer" (trans. D.E. Eichholz, Loeb). The description of Pliny, except for the fire-coloured vein, perfectly matches the *greywacke* of Wadi al-Hammamat, probably exported through Koptos, whose tones range from dark green to dark grey and, once polished, has a bronze patina. The "balanites" might be a ghost-word and a ghost-rock. Pliny knows *greywacke* under its correct name *basanites*: *quem (lapidem) vocant basaniten, ferrei*

coloris atque durtiae (Nat. 36.58. This comparison with the colour of iron, not bronze, is less felicitous). Also Nat. 36.147.

49. *Edictum Diocletiani de pretiis rerum venalium* 33, 6 (Lauffer); 31, 6 (ZPE 34, 1979, p. 163-210).

50. Gnoli 1971, p. 133 called diorite extracted at Umm Balad *granito verde fiorite di bigio*; it appears in the Palatine palace: Gnoli highlights particularly the slabs of the pavement in the *triclinium* of the *Domus Flavia* and adds that this material was used to make floor or wall slabs and small objects such as columnettes.

51. The fragmentary dedication of the fort has an erased line where the name of the *praefectus Aegypti* would be expected: it must thus be Mettius Rufus, prefect between AD 89 and 92. Furthermore, the oldest dated ostrakon is from AD 91.

52. I do not take into account isolated mining, as on the walled rock of Badiya or near the *praesidium* of Qattar, which are mere exploratory tests (Brown, Harrell 1995, p. 224).

53. 27° 9' 11.71" N / 33° 17' 0.24" E.

54. Coordinates according to Brown, Harrell 1995, p. 224.

55. http://www.eeescience.utoledo.edu/faculty/harrell/egypt/Quarries/Hardst_Quar.html.

56. I went there with A. Bülow-Jacobsen in January 2004.

57. Bagnall R.S., Harrell J.A. 2003, "Knekites." *CdE* 78, pp. 229-235.

58. Gnoli 1971, p. 113. While Bagnall and Harrell perceive the colour of this material as pale, for Gnoli, who calls it *porfido serpentino nero*, it is a dark rock.

59. 26° 56' 30" N / 33° 14' 39" E. On the diorite from Umm Shejilat, cf. Gnoli 1971, p. 126; Brown, Harrell 1995, p. 224. It is called *granito della colonna*, the most famous object made in this material being a small column (actually a baluster) brought from the Holy Land in the thirteenth century by Cardinal Giovanni Colonna; assumed to be the column of the scourging of Jesus, it is kept in the church of St. Praxedes in Rome (one easily finds a picture on the web by searching *Colonna della flagellazione*). The discoverer of this quarry, an Egyptian engineer, reports a Roman well at Umm Shejilat (Gnoli 1971, p. 126, n. 2).

60. http://www.eeescience.utoledo.edu/faculty/harrell/egypt/Quarries/Hardst_Quar.html.

61. The fact that Germanike Latomia was a delivery address for a camel driver delivering supplies indicates that the feature to which this place name refers is a *metallon*, not a *latomia* in its usual meaning of a specific quarry-site.

62. In the ostraca from Umm Balad, we have five occurrences of the spelling Ἀλαβ - and four of Ἀραβ -.

63. On the *alabarchai*, tax farmers who were sometimes fabulously rich, see Burkhalter F. 1999, "Les fermiers de l'arabarchie : notables et hommes d'affaires à Alexandrie." In *Alexandrie : une mégapole cosmopolite* (Cahiers de la Villa Kérylos 9), Paris, pp. 41-54 and Kramer J. 2011, "Ἀραβάρχης, Ἀλαβάρχης/arabarches, alabarcha," in *id.*, *Von der Papyrologie zur Romanistik* (APF Beiheft 30), Berlin - New York, pp. 175-184.

64. J. Gascou, pers. comm., suggests that *Arabarches* falls into the category of auspicious anthroponyms, rich *arabarches* being proverbial.

65. In eight cases, six without the article (among which three examples of the phrase εἰς Ἀλαβάρχην) and two with (including *P.Worp* 20).

66. § 30.

67. List of quarries: Peacock, Maxfield 1992, pp. 178-189. The numbers are shown on the plan published in *O.Claud.* IV, p. 10.

68. Organizational chart belonging to the same series as the document I published in Cuvigny 2005.

69. § 105.

70. Peacock, Maxfield 1992, p. 225.

71. *I.Pan* 45 = SEG XLVII 2122 (4), where the unfortunate resolution Ἀπολ(λῶνιοC) is corrected.

72. *I.Pan* 40, cf. *O.Claud.* I, p. 48; Peacock, Maxfield 1997, pp. 189 and 221.

73. As the beginning of line 31, which should be in double straight brackets: [ⲡⲓⲛⲁⲙⲙⲟⲛ].
74. BIFAO 1993, p. 64 sq. = SEG XLIII 1121.
75. Cuvigny H. 1992, "Inscription inédite d'un ἔργοδοτήC dans une carrière du Mons Claudianus." *Itinéraires d'Égypte. Mélanges offerts au Père Maurice Martin*, Cairo, pp. 73-88 (= SEG XLII 1576).
76. Swinnen W. 1968, "Philammon, chantre légendaire, et les noms gréco-égyptiens en -ammôn." *Antidoron W. Peremans, Studia Hellenistica* 16, pp. 237-262, sp. 260.
77. *Les conditions de pénétration et de diffusion des cultes égyptiens en Italie*, Leiden 1972, p. 44, n. 4 et p. 442.
78. SB XIV 11342, 6; SB XXVI 16726, 2.
79. IK XI1, 33, 4-5.
80. Rehm A. 1958, *Didyma, II. Die Inschriften*, Berlin, No. 502.
81. I thank Marie-Pierre Chaufray, Willy Clarysse and Françoise Dunand for helping me unravel this tangled question.
82. I thank Claire Le Feuvre and Sophie Minon for providing this citation.
83. On the distinction between memorial and anecdotal toponyms, see Dorion, Poirier, 1975, s.v. "anecdorique."
84. *O.Claud.* IV 850, 853, 857.
85. Except in the *Anonymous of Ravenna (Caenopoli)*.
86. Mayser, *Grammatik* II.2.1, p. 14.
87. Mayser, *Grammatik* II.2.1, p. 17 sq.
88. In this they follow the recommendations of the Second United Nations Conference on the Standardization of Geographical Names (see Dorion, Poirier 1975, p. 55).
89. Cuvigny 2005.
90. *O.Claud.* IV 841, introduction.
91. Lines 19 and 111.
92. Cf. § 104.
93. John Rea observed that a reading Παγκουα is not excluded.
94. But probably not the Prefect of Berenike, who seems to be at this time Arruntius Agrippinus (*O.Krok.* I, p. 137 ff.).
95. It is only after seeing the graffito, after a month of excavation, that I made the connection between the shape of the rock and the curious name of the *praesidium*.
96. J. Gasco, *JJP* 24, p. 14 n. 4; J.-L. Fournet, *REG* 105, 1992, p. 236; J.-L. Fournet, "Coptos gréco-romaine à travers ses noms." In *Autour de Coptos (Topoi Supplément 3)*, 2002, p. 52 sq.
97. Chantraine 1933, p. 116.
98. Cuvigny (ed.) 2003, I, p. 55; II, p. 281 sq.; p. 383.
99. H.-J. Thissen sees in this toponym the Egyptian name for galena ("Demotische Graffiti aus dem Wâdi al-Hammâmât." *Enchoria* 9, 1979, p. 63-92, ad 88).
100. Reinach A.J. 1910, *Rapports sur les fouilles de Koptos (janvier-février 1910)*, Paris, p. 43.
101. Guéraud O. 1942, "Ostraca grecs et latins de l'Wâdi Fawâkhir." *BIFAO* 41, pp. 141-196, n° 14 (= SB VI 9017). Cf. Cuvigny (ed.) 2003, I, p. 196.
102. This does not necessarily mean that the soldiers were still stationed in the village: the *proskynemata* may have been left by travellers. Ostraca found in the village indicate the presence of a mixed population of quarry workers and soldiers, but none are dated (Kayser 1993, No. 20-60= SB XXII 15660-15700).
103. I owe this remark to Herbert Verreth.
104. In theory, it could also be the genitive of Cίμιος, name of a Syrian god (Route I, p. 56).
105. Brun 2004, p. 135.
106. Brun 2004, p. 133.
107. *O.Did.* 54, c. AD 96.

108. O.Did. 458; O.Dios inv. 264.
109. The phrase “Berenike of the Trogodytes” (French *Bérénice des Trogodytes*) has been made up after Pliny, *Nat.* 2.183, *Berenice urbe Trogodytarum*, which is not a complex toponym, *urbe Trogodytarum* being only an explicative gloss in apposition.
110. ILS 2483= I.Portes 56.
111. <http://www.trismegistos.org/nam/detail.php?record=1427>.
112. For the gold mines at Daghbagh see Klemm, Klemm 2013, pp. 161-168 (the authors interpret the mills as ore washeries); however, cf. B. Redon, “Samut North: ‘heavy mineral processing plants’ are mills.” *Egyptian Archaeology* 48, 2016, pp. 20-22.
113. O.Dios inv. 922.
114. O.Dios inv. 53. According to Mayser, *Grammatik* II .1, 8, neuter plural article τὰ used before a personal name means “the house of, the property of.” But the formula can also designate the offices of an official (εἰς τὰ τοῦ βασιλικοῦ γραμματέως) or, in the Byzantine period, a religious building, a monastery: τὰ τοῦ ἁγίου ᾧ πα Φοιβάμμωνος.
115. Cf. § 206.
116. For the Early Roman Empire, it is mainly in Latin that I found poetic reminiscences, e.g. Ovid. *Met.* 2.235: *mare contrahitur siccaeque est campus harenae / quod modo pontus erat*. Manilius, *Astronomica* 5.688: *congeritur siccum pelagus*. Lines 448-449 of book 5 of *Oracles Sibyllins*, antipagan poem probably composed in Alexandria by a Jew between 80 and 130, use the same image: ἔσται δ’ ὕστατῷ καιρῷ ξηρὸς ποτε πόντος, / κοῦκέτι πλωτεύουσιν ἐς Ἰταλίην τότε νῆες. Other poetic examples can be found in Greek, but in the Byzantine period.
117. Bülow-Jacobsen A. 2013, “Communication, Travel, and Transportation in Egypt’s Eastern Desert during Roman Times (1st to 3rd century AD).” in *Desert Road Archaeology in Ancient Egypt and Beyond*, Fr. Förster, H. Riemer (eds.), Köln, p. 561, n. 3.
118. Ostraca of Xeron: 7 occ. of Ξηρὸν Πέλαγος, 8 of Ξηρόν. Ostraca of Dios: 1 occ. of Ξηρὸν Πέλαγος, 10 of Ξηρόν.
119. A prosopographic overlap allows the date of 216-219. Phalakron was abandoned in the early third century, before the time characterized in Didymoi, Dios and Xeron by rubbish deposits inside the fort, and by the uncontrolled proliferation of *loculi*.
120. O.Xer. inv. 257 (post register); O.Xer. inv. 956, 5 (soldier’s letter).
121. O.Dios inv. 818 (list of *praesidia* from Apollonos to Phoinikon); O.Xer. inv. 488.
122. Sidebotham 2011, p. 161.
123. *mox ad Novum Hydreuma* (*Nat.* 6.102).
124. Meredith D. 1953, “The Roman remains in the Eastern Desert of Egypt (continued),” *JEA* 39, pp. 100-101.
125. Sidebotham 2011, pp. 130, 149, 163.
126. Sidebotham 2011, p. 97. Plan of this *hafir*: Sidebotham S.E., Zitterkopf R.E. 1995, “Routes through the Eastern Desert of Egypt.” *Expedition* 37/2, p. 44, Fig. 6.
127. In Sidebotham S.E., Gates-Foster J., Rivard J.-L. (eds.) 2018 (forthcoming), *The Archaeological Survey of the Desert Roads between Berenike and the Nile Valley: Expeditions by the University of Michigan and the University of Delaware to the Eastern Desert of Egypt, 1987-2015*, Boston.
128. So Meredith, *JEA* 38, 1953, p. 100. John Ball, in a confused note, considers that Pliny reverses the names of the two last stages of the road and erroneously calls Novum Hydreuma “Vetus Hydreuma” (J. Ball, *Egypt in the Classical Geographers*, Cairo 1942, p. 83). But then where would be, according to Ball, the true Vetus Hydreuma?
129. O.Claud. inv. 8828, found in the “Hydreuma”: εἰς Πα[ύμα].
130. O. Claud. inv. 2238. A shaduf in a desert way station, see Fig. 13.8 in Sidebotham *et al.* 2008, p. 320 (reconstruction of the way station of Wadi Wadi Abu Shuwayhat, also called Tala’t al-Zarqa’, on the road to Claudianus).
131. Sidebotham S.E. 2011, *Berenike and the Ancient Maritime Spice Route*, UCP, pp. 119-120.

132. Klemm, Klemm 2013, pp. 70-74.

133. I thank Rosemarie Klemm for kindly providing me with the original photo.

134. The editor, Jean Bingen, still doubts whether it is Raïma, because the author of the letter also acknowledges receipt of a water amphora: why indeed send water to Raïma? But it is undoubtedly special water. This is certainly not an amphora with water to water the vegetables.

135. τὸ κυρτίδιον ἃ (l. ὁ) ἔπεψεν ἡμῖν ὑπὸ τῶν χειμάτων.

136. The papyrological occurrences of ῥάκος et de ῥακάδιον are gathered together and discussed by R. Mascellari, *Lex.Pap.Mat.* III, 2 (*Comunicazioni dell'Istituto Papirologico Vitelli* 12, 2016), pp. 151-159.

137. In the Eastern Desert, it is the rock hyrax, *Procavia capensis*, not the bush hyrax *Heterohyrax brucei* (Yves Lignereux, email 17/07/2016). This small mammal is the size of a rabbit and it is hard to imagine that its droppings were used to fertilise a vegetable garden.

138. Gignac F.R. 1981, *A Grammar of the Greek Papyri of the Roman and Byzantine Periods*, II, *Morphology*, Milan, p. 66 sq. Robert Daniel, whom I consulted about this remark and would like to thank, cautioned me that Gignac cites only χεῖλα in PGM 4401, which is actually the only example, and that it is interpreted as a poetic reminiscence: in prose passages of magical papyri, we have the regular form χεῖλη.

139. Τὸ σκάτος· καὶ τοῦτο ἐπ' εὐθείας τιθέμενον ἀμαθέος· γενικῆς γάρ ἐστι πτώσεως, τοῦ σκατός, ἡ δὲ εὐθεῖα τὸ σκῶρ. ἀμαρτάνοντες δὲ οἱ πολλοὶ τὴν μὲν ὀρθὴν τὸ σκάτος ποιοῦσιν, τὴν δὲ γενικὴν σὺν τῷ υ τοῦ σκάτους (*Eclogae* 260).

140. While the use of goat, sheep, horse, cattle, camel, dog and cat dung is constantly attested by the authors and in medical texts, Pliny is the only source mentioning pig excrement that is reported by Durling R.J. 1999, "Excreta as a remedy in Galen." In *Tradition and Traduction. Hommage à Fernand Bossier*, R. Beyers et al., Leuven, p. 28. After describing the different ways of preparing wild boar droppings for medication, Pliny (28.138) simply adds that pig manure has properties similar to those of wild boar manure, which gives the impression that it might serve as a substitute (*proximam suillo fimo putant vim*). Boar dung which, unlike that of pigs, is frequently cited in the medical literature, was, according to Pliny, used against bruises and injuries due to falls, so that charioteers would commonly use it. For this reason, Nero would put on a show of consuming it.

141. O.Claud. inv. 7038 mentions a *curator* of Kampe.

142. Gendron St. 2006, *La toponymie des voies romaines et médiévales. Les mots des routes anciennes*, Paris, p. 42 sq.

143. O. Claud. inv. 8851, 8875, 8890, 8908, 8923.

144. Sidebotham, et al. 1991, p. 582 sq. (with plan).

145. Maxfield, Peacock 2001, pp. 215-237. Well: p. 236 sq.

146. Maxfield, Peacock 2001, pp. 200-202.

147. Photo in Maxfield, Peacock 2001, Fig. 5.13 p. 201.

148. A. Bülow-Jacobsen, *per os*.

149. My two informants, to whom I could only show the photo cited n. 147, are of different opinions. L. Nehmé thinks that camels could use that mule track, "provided the path is wide enough, as the photo suggests. There are trails of this type around Petra, on plots of caravan routes" (email of 28th June 2016). But Carlo Bergmann, who travelled across the Sudanese and Egyptian deserts with small groups of camels, is less certain: "Such trails are not really suitable for camels. Firstly, the trails seem to be quite narrow. Camels walk in amble and would be afraid to follow such lanes, especially if these (like the one in the middle) are running almost parallel to a quite steep slope and if the beasts carry heavy loads. Secondly, the trail in the centre seems to pass over very rough gravel which fills the front of the picture. Anyone caring for his camels would have cleared from the track at least a few of the roughest stones. (...) The hoofs of donkeys would not require such clearance" (email of 18th September 2016).

150. Sidebotham *et al.* 1991, p. 577 sq. (with plan); Maxfield V.A. 1996, "The Eastern Desert Forts and the Army in Egypt during the Principate." In *Archaeological Research in Roman Egypt*, D.M. Bailey (ed.), *JRA Suppl.* 19, pp. 17-19.
151. Sidebotham *et al.* 1991, p. 577.
152. Sidebotham *et al.* 1991, p. 577.
153. Sidebotham *et al.* 1991, p. 577.
154. This is precisely the number of ostraca mentioning these names.
155. O.KaLa. inv. 483.
156. = p. 695 in Müller's edition.
157. Called by Ptolemy ἡ ὀρεινὴ ῥάχις τοῦ βασιανίτου λίθου ὄρους. On this passage of Ptolemy, see § 22-23. Remarkably, Mons Claudianus is not in this list (and does not appear at all in the *Geography*).
158. Cf. also Marcianus, *Periplus maris exteri*, 1.13.15: ἐν δὲ τῷ τέλει τοῦ κόλπου κεῖται τὸ μέγιστον ἄκρωτήριον, ὃ καλεῖται Πράσον ἄκρον.
159. "The Ostraca from Umm Balad," *PapCongr.* XXVIII (forthcoming).
160. Masson O. 1976, "Grecs et Libyens en Cyrénaïque d'après les témoignages de l'épigraphie." *Ant. Afr.* 10, p. 60.
161. O.KaLa. inv. 549.
162. O.KaLa. inv. 783; 785; 811. The last two letters are written by Turranius, who we have reason to believe is curator of Prasou.
163. On the Turranius' letters, see Cuvigny 2014.
164. See the section, s.v. Ἀκάνθιον, Ἀκανθα, "L'Acacia".
165. Five occurrences without the article, and three with it.
166. I owe this explanation to the perspicacity of Jean-Louis Perpillou.
167. Peacock, Maxfield 1997, pp. 151-154.
168. Bingen J., Jensen S.O. 1992, "Mons Claudianus. Rapport préliminaire sur les cinquième et sixième campagnes de fouille (1991-1992)." *BIFAO* 92, sp. p. 16.
169. O.Claud. inv. 1538, 6, published in Cuvigny 2005. The reading] Δ·ΙΟ·C·C·K(ορίοιC) in O.Claud. IV 695, 3 seems doubtful given the infrared photo.
170. O.Claud. inv. 1287, 1288, 1306, 1378, 1530, 1801, 3322.
171. In the case of the minor road to Akanthion, this reference point is Claudianus.
172. Valat D. 2008, "Interférences onomastiques et péri-onomastiques dans les Res Gestae d'Auguste." In *Bilinguisme gréco-latin et épigraphie*, Fr. Biville, J.-Cl. Decourt, G. Rougemont (eds.), Lyon, p. 249. That criterion allows a more precise date for *I.Mylasa* 214 (=IK 35), for which the editor does not offer a date and which McCabe, in the *Searchable Greek Inscriptions*, dated second to first century BC: in line 12 there is a mention of a Τροβαλιςσιική ὁδός. The use of the adjective suggests that this inscription is in any case later than the Roman takeover of Caria that occurred at the end of the Republic. Another indication of the Roman influence is provided in line 1 by the toponym Ὀμβιανὸν πέδιον, the proprial adjective being provided with a Latin suffix.
173. *P.Oxy.* XLV 3243, 14.
174. Below are the last lines of the inscription: *per eosdem qui supra scripti sunt, lacci aedificati et dedicati sunt: Apollonos Hydreuma VII K(alendas) Ianuarias, Compasi K(alendis) Augustis, Berenicide XVIII K(alendas) Ianuar(ias), Myos Hormi Id[ib]us Ianuar(iis) castram aedificaverunt et refecerunt.*
175. In the case of these two Latin poets, the use of the suffixed form is explained perhaps only by the needs of the metre.
176. Chantraine 1933, p. 339. None of the examples cited by Chantraine is derived from a town or village name. The *RE* correctly points out that *Berenicis* in the two Latin poems is the city itself, not its surroundings (s.v. *Berenike*, col. 282 [8]).
177. De Romanis F. 1996, *Cassia, Cinnamomo, Ossidiana*, Roma, p.175, n. 23. This interpretation is further vitiated by interpreting laccus as "well" instead of tank.

178. It's the same for Ἀρσινόη/Ἀρσινόϊς, Κλεοπάτρα/Κλεοπατρίς, Φιλωτέρα/Φιλωτερίς (for the latter name, see § 201-203).
179. Message from 15 April 2013.
180. When one thinks about it, the Greek and Latin did not have a noun to refer to this geographical feature, other than ἔρημία, *solitudo*, which are perhaps too suggestive.
181. Klaudios Ptolemaios, *Handbuch der Geographie*, A. Stückelberger, G. Grasshoff [eds.], I, Basel 2006, p. 425, n. 123. H. Verreth (pers. comm.) observes that this confusion must go back to the Barrington Atlas 2000, pl. 80, F4 (Berenicidis Mons= Smaragdus Oros). This edition of the *Geography* also wrongly distinguishes between *Berenike* in 4.5.15 and *Berenike Trogodytika* (with reference to Calderini, *Diz. Geogr.* II.40 and K. Sethe, *Berenike* [5] in *RE* 3.1 [1897], 280 ss.).
182. *IPan* 86. The parallel expression τὸ κατὰ Κυήνην ὄρος attested in *OGIS* 168, 11 and 14= *IThSy.* 244, 40 and 54 (AD 115) does not designate a vast desert region such as the desert of Koptos or Berenike, but only the quarry area of Syene; it is a descriptive gloss rather than a toponym and, if we consider it as a toponym, it could be the name of a *metallon*.
183. Today Qusayr al-Qadim.
184. 7 occ. of Μυδὸς Ὀρμος vs 19 of Μύκορμος/Μυκορμιτική. Some manuscripts of the *Geography* of Ptolemy present the reading Μίσηρμος, Μίκορμος.
185. The late David Peacock liked this idea and wrote back: "I think your suggestion is a good one. The entrance is narrow and divers have seen a reef in the middle. Compared with the other Red Sea ports it must have been a pain to get into –and there is the wreck at the mouth as proof!" (Email of 27th November 2010).
186. Artemidorus *ap.* Strabon 16.4.5.
187. On this passage of Pomponius Mela, see Cohen G.M. 2006, *The Hellenistic Settlements in Syria, The Red Sea Basin, and North Africa*, UCP, p. 312.
188. *Mox oppidum parvum est Aenum – alii pro hoc Philoterias scribunt*. But *Philoterias* (H. Verreth pointed out to me that it must be an accusative plural) is a conjecture by Mayhoff: all manuscripts give the final *-ria* or *-rias*, while the beginning of the name is more or less corrupted. On *Philotera* see the comments of J. Desanges in his edition of Book VI of Pliny (*CUF* 2008), p. 53.
189. Prickett M. 1979. In *Quseir al-Qadim 1978. Preliminary Report*, D.S. Whitcomb, J.H. Johnson, Cairo, p. 271. Bi'r Qarim: 25° 55' 53" N/34° 03' 27" E.
190. A. Bülow-Jacobsen, in Cuvigny 2003, I, p. 56.
191. O.Max. inv. 1149. We read line 7: ἀλλὰ ἐν τῷ Φιλωτε[ρίῳ].
192. I make my argument using the map of Meredith, having never been to Bi'r Karim myself.
193. Whitcomb D.S., Johnson J.H. 1982, *Quseir al-Qadim 1980. Preliminary Report*, Malibu, p. 292.
194. See Van Rengen's article in these proceedings, § 16. The site of Bi'r (Wadi) Karim is described, with a good satellite image, in Klemm, Klemm 2013, pp. 148-151.
195. Email 20th March 2017. Non vidimus.
196. Sidebotham S.E. 1996, "Newly discovered sites in the Eastern Desert." *JEA* 82, pp. 190-192 and pl. XIX. A. Bülow-Jacobsen and I have vainly sought this inscription Friday, January 25th, 2011.
197. See *O.Did.* 44 and the letter of Nemesous *O.Did.* 400, which shows that even a procuress referred to this unit of measure.
198. *IPan* 51 (AD 11), *ILS* 2698 (Tiberius), *IPan* 68 (AD 76/77), *IMemnon* 14 (s.d.).
199. See § 104.
200. No more than Σταθμός in the Ptolemaic era: this is the noun which refers to desert way stations in the ostraca from Bi'r Samut, which, in the third century BC, is one of these Σταθμοί on the road from Edfu to Berenike. The only appellative used then as a generic element in a complex toponym is Ὑδρευμα.

201. ἀπὸ Μέλανος Ὅρους πραισιδίου (O.KaLa. inv. 637); κουράτωρ Κλαυδιανοῦ μετάλλου (O.Claud. II 371).
202. SB XXVIII 17096, 5-6.
203. But by exception (see above) the ellipse may affect the generic in the phrase ἑπαρχος ΒερενίκηC.
204. Mayser, *Grammatik* II.2.1, p. 14.
205. *Grammatik* II.2.1, pp. 13-18.
206. Ἐν τῷ Κλαυδιανῷ: O.Claud. inv. 7294; 7484; P.Claud. inv. 32; mentions of the Τύχη τοῦ Κλαυδιανοῦ.
207. Somaglino Cl. 2017, “La toponymie égyptienne en territoire conquis: les noms-programmes des menenou.” In *Du Sinaï au Soudan. Mélanges offerts à Dominique Valbelle*, N. Favry et al. (eds.), Paris, pp. 231-244. The antecedent of “who” is more likely the Pharaoh than the fortress itself.
208. See *supra*, n. 38.
209. J. Desanges doubts this interpretation and believes Pliny misunderstood its source, and that Juba had only written that the island takes its name from the Greek verb τοπάζειν (Desanges 2008, p. 62).

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