In 2014 the French archaeological mission to the Eastern Desert launched a new program of excavations with the aim to investigate military and economic policies of the Ptolemies in the region. More specifically, it focuses on the military control that the Ptolemies exercised over the commercial road, which once linked Edfu in the Nile Valley to the harbor of Berenike on the Red Sea, as well as on the exploration and management of natural resources of the desert, in particular, gold.1 The program started in the district of Samut (Fig. 1), which is located approximately half-way between Edfu and Marsa Alam, and focused on two sites dated to the early Hellenistic period (late fourth–third century BCE): Samut North, a gold mining settlement, and the fortress of Bi‘r Samut, the largest Ptolemaic fortress of the region. Around 1,230 ostraca written in Egyptian Demotic, Greek and Aramaic have been discovered. The majority come from the dumps outside of the fortress of Bi‘r Samut, but a few ostraca were found inside of it, too. A further twenty-five pieces were discovered in the site of Samut North and three more in Abu Garaish, a small satellite site of Bi‘r Samut. This article will examine some of the contexts excavated in Samut North and Bi‘r Samut that yielded ostraca and tituli picti in order to assess if and how analysis of find-locations can help establish dossiers and provide evidence for the occupation of the sites. In other words, the question we want to address is to what degree the findspot of the documents is relevant for their interpretation.

1 The campaigns of the mission are carried out with the financial support of the French Ministry of Europe and Foreign Affairs and the French Institute of Oriental Archaeology in Cairo, whom we thank deeply.

2 The excavations at Samut North were conducted by J.-P. Brun, Th. Faucher, and B. Redon; the exploration of the vein was carried out by Fl. Téreygeol, A. Arles, and J. Gauthier. For archaeological reports and some general overview, cf. Brun et al. 2013a; Brun et al. 2013b; Redon/Faucher 2014, 2015, 27–29, 2016, 2017; Redon 2016 [2017]. The monograph devoted to the excavations of Samut North, Redon/Faucher (eds.) 2020, has just been published by the IFAO press.
Fig. 1: The Eastern desert sites and roads during the Ptolemaic period.
Fig. 2: Samut North, general plan of the Ptolemaic gold mining settlement.
exploited to the length of 277 meters and the depth of 10 meters (Fig. 2). The main structure of the area (Building 1) is located southeast of the main entrance to the vein and measures 58 × 36 m. Its four wings were organized according to the purpose that the space served: the western wing housed a kitchen or bakery with an annex and a possible dining room; the southern wing accommodated several storage rooms for wine and other foodstuffs, as well as a possible chapel with a small altar. The northern wing, equipped with a second floor, hosted a small kitchen on the ground floor; finally, the eastern wing comprised three large rooms, which could be identified as living quarters and dormitories for miners; they were guarded by a gatehouse near their narrow entrances.3 Building 2, located near the main entrance to the mine and equipped with two working areas, hosted a similar dormitory, which was probably intended to house the miners extracting the quartz from the vein and the workers crushing the quartz after it was carried out of the mine. Finally, a third area was outfitted with two large mills used to reduce the quartz into powder from which the gold was eventually extracted.

The pottery of Samut North is scarce: only 339 pots were registered.4 Very thin stratigraphy of Buildings 1 and 2 and some aspects observed in the mine itself suggest that Samut North was occupied only briefly, maybe for only two or three campaigns of a few months each. The pottery assemblage and the paleography of the very few texts found at the site have enough distinctive features to indicate that the gold mine was exploited during the last quarter of the fourth century BCE, more precisely around 310 BCE.5

Only 25 texts were found in Samut North; this paucity is probably due to the short occupation of the site. Almost all the texts are tituli picti except for four owner’s marks on bowls and lamps. The tituli are brief by nature, usually comprising two or three letters or words. The longest text consists of two inscriptions painted by two different hands, on the neck of an Aegean amphora (possibly from Cnidus):

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(first hand)
ἰσχα(δες)
Μυ(ω) vac. τξη (sign)
τραπεζίτηι
(second hand)
παρὰ Αθην( )
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5 ἱσχά(δες) vac. μέλαιναι

3 A significant number of pottery and trinkets made of quartz and steatite as well as stone tools for the miners were found there, cf. Redon 2016.
4 The pottery was studied by J.-P. Brun; his analysis is published in Redon/Faucher (eds.) 2020, 136–211.
5 See the conclusion of B. Redon in Redon/Faucher (eds.) 2020.
6 The tituli picti from Samut North in this article are identified by their edition numbers in Redon/Faucher (eds.) 2020, 101–135, where B. Redon is responsible for the Greek and M.-P. Chaufray for the Demotic ostraca.
368 dry figs for Mys the banker. From Athens, dry black figs.

O. Sam. 4 = TM 706211 (found in Room 110; Fig. 4)

The majority of the texts were discovered in the northern and southern wings of Building 1. Sixteen are in Greek, six in Demotic, and two are bilingual; in one case, the language of the writing could not be identified. Eight to ten texts mention people’s names: most of the time, they are Egyptian names, but one Carian (the banker Mys, in O. Sam. 4 = TM 706211, cf. supra) and two abbreviated Greek names make an appearance, too. There are also records of the products that the jars once held, such as wine, cheese, figs, honey, bulgur, and *kardamon* (cress, either seeds or oil). They also include numerals, the meaning of which is not always easy to determine (price? capacity? number of the amphora?). Sometimes, the provenance of the product is written. For example, the wine contained in the jar found in Room 115 came from “the vineyard of Pais” (O. Sam. 1 = TM 706208; Fig. 3); the honey stored in Room 120 originated from Lycia (O. Sam. 13 = TM 706220). Seven *tituli* mention the name of the addressee and, for one of them, his function (a banker, on O. Sam. 4 = TM 706211). The location of one of the addressees may be mentioned on the *kardamon*-jar (O. Sam. 8 = TM 706215; Fig. 5), which bears the word “fortress” (the reading *rs*, however, is tentative).

Although the contents of the *tituli* do not give a lot of information, the place of their discovery sheds light on the function of the southern and northern wings (Fig. 6). The south rooms yielded the largest number of amphorae from the site (almost 20 of 96 in total for the whole site), including several imported amphorae (in particular from Cnidus) whose *tituli* include commodities, such as wine and Lycian honey, or a number, which may be the registration number of the vessel in a series, its capacity, or price (see above). This circumstance suggests that these rooms were storerooms, conveniently located near the main entrance of the building and equipped with silos.

Egyptian personal names are attested in the *tituli* in all four wings, while Greek and Carian names are found only in the northern wing. The *tituli* found in the northern wing are also noteworthy in that they mention rare contents or contents one would not expect to find in the context of a mine located in the middle of the desert, such as dry black figs (O. Sam. 4 = TM 706211, cf. supra for the text; O. Sam. 5 = TM 706212) or cress (in whatever form it was sent to Samut North, that is, either as oil or seeds, O. Sam. 8 = 706215). Furthermore, they are distinguished by the fact that these products were sent

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7 *tȝ mḥ-1*, “the first” (O. Sam. 14 = TM 706221) would mean then the first jar in a group of jars.
8 The recent excavations and analysis of the archaeobotanical remains of the three Ptolemaic settlements of Bi’r Samut, Samut North, and Abbad by the French archaeological mission to the Eastern Desert clearly show that the Roman supply system in the Eastern desert was much more elaborate than the Ptolemaic one and made available a greater variety of foodstuffs to the region’s inhabitants. Honey, figs and other non-essential foodstuffs are rare in the Eastern desert during the Ptolemaic period.
to a banker (O. Sam. 4 = TM 706211, cf. supra) and possibly to a “fortress” (O. Sam. 8 = TM 706215). It is noteworthy that the rooms of the northern wing yielded rarer and more varied artifacts than other rooms of Building 1, notably an alabaster plate and a set of complete amphorae (Fig. 7). The material was discovered mainly in the upper layers of the room’s filling formed by the destruction of the upper story, which is also a peculiarity of the northern wing. Taken together, this evidence could indicate that the northern wing (with an elevated position, which is also remarkable) accommodated important people, such as the chief of the garrison and the banker responsible for the control of the weights in the mine.

Fig. 3: O. Sam. 1 = TM 706208.
Fig. 4: O. Sam. 4 = TM 706211.

Fig. 5a (left) & 5b (right): O. Sam. 8 = TM 706215.
Fig. 6: Find location of the texts in building 1 of Samut North.
2 Ostraca and *Tituli Picti* from Bi’r Samut

2.1 The Fort of Bi’r Samut

Bi’r Samut is a Ptolemaic fortress located in a *wadi* (dry valley), along one of the ancient roads leading from the Nile Valley to the Red Sea; it lies approximately 120 km from Edfu and 200 km from the harbor of Berenike. Despite recent destruction and the disappearance of its eastern corner, the fort is relatively well preserved, and our mission was able to carry out excavations in all but six rooms. Equipped with bastions at the corners and measuring 71.50 by 58 meters, it is the largest Ptolemaic fort in the Eastern Desert. In some places, the curtain wall is still preserved to the height of nearly 2.50 m. The main access (which probably opened onto the caravan track) was in the northeast corner, via a door with a lock; a postern was located on the opposite side.

Our mission found no trace of the well that gave its name to the fort (Bi’r) and was reported until the early twentieth century; it was probably destroyed during...
recent interventions. The well must have supplied the vast tank (number 15 on Fig. 8) unearthed near the gate. The constructions inside the fort are arranged in a standard way along the curtain wall, in one, two or three rows of rooms. Thanks to the good preservation of the remains, our excavations could determine the function of the majority of the preserved rooms, if not all. The southern bastion housed rooms equipped with silos, while the northern one hosted baths; we found several bakeries and kitchens in the north-west wing and living rooms with textile industry traces (dozens of loom weights and weaving tools) in the eastern wing.
The date of construction of the fort is not entirely certain. Preliminary study of the material suggests that it may have been built around or a little before the middle of the third century BCE.\textsuperscript{11} The fort was occupied for several decades, and an intense activity is evidenced during the reign of Ptolemy III Euergetes and the beginning of the reign of his son, Ptolemy IV Philopator. The fort was evacuated suddenly, perhaps violently, most likely following the beginning of the Great Theban Revolt (late third century BCE), and was no longer occupied, except sporadically, during the Roman Empire.\textsuperscript{12}

During its occupation, the fort had to be regularly cleared, which led to the formation of two dumps outside the entrances and against the northern and western curtain walls of the fort. The two dumps yielded the majority of the ostraca and \textit{tituli picti} found at Bi’r Samut: 714 came from the western and 244 from the northern dump. In addition to these, 266 were brought to light inside the fortress. Of the 1,224 texts discovered at the site, 542 are written in Greek, 622 in Demotic, 45 are bilingual Greek-Demotic, and 15 are in Aramaic. We present here two dossiers, which illustrate the importance of combining textual and archaeological data, while also exposing difficulty and limitation of this approach.

\section*{2.2 The Payba Dossier from Bi’r Samut}

Among the 622 Demotic documents found in Bi’r Samut, a dossier of six letters written by a scribe named Payba has been identified. The ostraca bearing them were discovered inside the fortress in different contexts: four letters were found in the tank, which was used as a dump during a later occupation of the fort;\textsuperscript{13} one letter was found in room 24 and one letter in room 31.\textsuperscript{14} Two letters are concerned with sacks of salt (inv. 998 = TM 818069 and 999 = TM 818070); one with a sack of flour (inv. 996 = TM 818068), one letter is about money (inv. 995 = TM 818067), and one letter mentions a Blemmy (inv. 1041 = TM 818071). These five documents are fragmentary and their content is difficult to understand. A sixth letter is almost complete and records a ‘miracle’ which happened in the desert (inv. 985 = TM 754181; Fig. 9):\textsuperscript{15}

\begin{verbatim}
Psỳ-b3 sm r Mls p3 šh-nw (n) p3 3wk nwms 2[h]n Pa-b’r t3 Pa-t3.wy P3-dì-B3st.t hpr h3.t-sp 7t ìbd-3 šm w-13 3[n] p3 nw ‘q p3 šw hw t3 p.t ār=s ‘[lw p3] šy(?) mh t3 št.t Ta-h3 p3 mw ‘[i.ir] psỳ bšk pḥ r-ār=tn m-ār wrùy r-hṛy ᵯm p3 sp rmḥ [nty iw] ār=tn tnh ṯnh t=w r-hṛy n-ḏt=tn r-ḏb3 (p3 nty) hpr (n) t3 št.t ‘[w’] mh 3 mw (m) mn psỳ(=y) bšk mṭr psỳ syḥn ᵱr-înty ᵯṛytrṣ r-hṛy n-ḏt=tn ᵱy ⁶ḥ b ᵱ Kmy ‘n vacat śh
\end{verbatim}

\textsuperscript{11} Redon 2018, 18.
\textsuperscript{13} Inv. 998 = TM 818069 (BS 15. 36), 995 = TM 818067 (BS 15. 33), 996 = TM 818068 (BS 15. 30), 999 = TM 818070 (BS 15.23).
\textsuperscript{14} Inv. 1041 = TM 818071 (BS 24.11) and 985 = TM 754181 (BS 31.09).
\textsuperscript{15} We thank Michel Chauveau for his help in deciphering the text.
Payba greets Melas the control-scribe of the oikonomos, and Pabara, Patous, Petoubastis. It happened in year 7, 13 Epeiph, at the start of the drought-season: the whole sky fell [while the] flood has filled up the well of Takha with water. As soon as this letter reaches you, come up there with the rest of the people that you can take with you up there, because what comes in the well, it is three cubits of water per day. My letter bears witness to this wonder. Bring Heliodoros up there with you. May someone write (that) to Egypt too. Written.

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16 This title, not yet attested, is certainly an equivalent of the title šḥ ỉr.ty, see Vittmann 1994, 325–338.
17 The word is partly in lacuna and it is not clear whether it must be read šy or my. The yod followed by the water-determinative is certain, and the meaning must thus be connected with water.
18 The word is written with the water-determinative followed by the house determinative.
19 This place has not been identified yet.
20 syḥn for šḥny.
The letter records a sudden rain, which filled a well with a large quantity of water. This climatic event happened in year 7, either under Ptolemy III, in 240 BCE, or under Ptolemy IV, in 215 BCE. Only the stratigraphy and the close examination of the complete dossier of Payba can help choose between the two reigns.

The six letters were found scattered in the northern part of the fort in Rooms 24 and 31 and in the tank area. Inv. 1041 = TM 818071 comes from a preparation layer (24.10)\(^{21}\) for the construction of the second floor of room 24 (layer 24.07). Inv. 999 = TM 818070 and 996 = TM 818068 were found in layers 15.23 and 15.30, which are formed by a thick deposit of ashes around two furnaces built against the secondary gate of the fort after it had been blocked. The furnaces were in use during the occupation of the fort, but they date from one of its late phases of occupation. The other two layers excavated near the tank (15.33 and 15.36) come from a small dump that covered the ash layers mentioned above; they are probably associated with the last occupation period of the Ptolemaic fort. Finally, the “ostracon of the miracle” (inv. 985 = TM 754181) was found in layer 31.09, the second occupation layer of Room 31 (after 31.10). Two persons mentioned in this letter are known from other texts: Heliodoros is found on an ostracon coming from layer 253.04 of the northern dump and Melas, the scribe, appears in several ostraca found in layers 12.04 (Room 12) and 254.05+244.03 (northern dump). Layer 12.04 is the last layer of occupation of Room 12 before its abandonment. The layers of the northern midden are all located in the upper layers of the stratigraphy, but not directly before the abandonment of the fort. They are the second to last deposits in these areas.

All these elements show that the Payba ostraca do not come from the first phase of occupation of the fort, just after its construction. Rather, they are all from the last or second to last levels of occupation in the rooms inside the fort. The earliest ostracon could be inv. 985 = TM 754181, coming from layer 31.09, i.e. the second occupation layer of Room 31. However, it is not a reason to assume that this layer dates from the early phases of the fort occupation, since we know that the fort was regularly cleared and emptied, and that the material was thrown outside in the dumps (see below). The fact that the Payba ostraca come from the late layers in the northern dump and in the tank-dump of area 15 is a good clue to indicate that the “ostracon of the miracle” should be assigned to the reign of Ptolemy IV Philopator and dated to August 24, 215 BCE.

\(^{21}\) The first two numbers refer to the room in which the layer was excavated (i.e. layer 24.10 is layer 10 of Room 24). If the layer starts with a 3-digit number, it means that it was excavated in the dumps. The squares of the northern dump begin with 1 while the squares of the western dump start with 2 (i.e. layer 253.04 is layer 4 of the square 253, which was excavated in the western dump).
2.3 The Jar Labels of Storeroom 12

Room 12, in the southern bastion of the fort, was equipped with a set of twelve Egyptian amphorae, which were probably reused as granaries (Fig. 10). Charlène Bouchaud (CNRS, MNHN), the archaeobotanist of the mission, studied the content of the amphorae but, apart from one of them, which was full of charcoal, the amphorae did not yield any meaningful botanical remains. The tops of the amphorae were cut off so that the necks and handles had disappeared. The foot of each was also deliberately broken; Jennifer Gates-Foster (University of North Carolina, Chapel Hill), who is in charge of the pottery study, suggests that it was probably done in order to empty them out or to facilitate their re-use for storage and prevent the retention of moisture in the pot.

All twelve but one of the Egyptian amphorae were labelled. Five bear tituli in both Greek and Demotic. The inscriptions are usually written around the pot, which makes it difficult to understand exactly the sequence of the texts. Thus, it is unclear which inscriptions are to be associated with the first use of the jar and which were written afterwards when the jars were refilled and reused as granaries. Five of these amphorae bear regnal years, which are quite close to one another:

- year 10 on inv. 5017 = TM 818075 (BS 12.18.2), 1136 = TM 818073 (BS 12.18.4), 5018 = 818076 (BS 12.18.7);
- year 12 on inv. 5018 = TM 818076 (BS 12.18.7);
- year 14 on inv. 1134 = TM 818072 (BS 12.18.1), 1137 = TM 818074 (BS 12.18.5; Fig. 11).

If we consider that the regnal year is that of the first use of the jar, then it gives a terminus post quem for the reuse of the jars as granaries. Only year 12 on inv. 5018 = TM 818076 is not the year of the first use of the jar, since year 10 is also written on it. The question, as with the Payba dossier, is whether the years should be those of the reign of Ptolemy III or Ptolemy IV.

The stratigraphy of Room 12 is simple (Fig. 12): the fort was built on the remains of an earlier occupation, prior to the fort, dated to the early third century BCE according to the pottery. The first preserved floor of the room is 12.07; it is cut by a trench along the southern, eastern and western walls that housed the twelve jars. A second floor (12.04) was built above the occupation layer, and the room was eventually abandoned. The jars thus belong to an early phase of Room 12, and one’s first impulse would be to associate the tituli of the jars with the reign of Ptolemy III, i.e. from the year 238 (year 10) to 234 BCE (year 14). But if the floor 12.07 was really the first floor of the room, contemporaneous with the construction of the fort, then the construction of the fort itself has to be dated to after 234 (our terminus post quem here). This is very unlikely: neither the pottery study, nor the analysis of the coin finds22 would lend support to

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22 16 coins were found at Bi’r Samut. The majority of them belong to series 3 and 4 of the Ptolemaic coinage, dated 261–240 and 240–220 BCE (information by Th. Faucher).
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this hypothesis. Rather, they indicate that the fort was built around the mid-third century BCE or possibly a little bit earlier, slightly after the foundation of Berenike and probably simultaneously with other forts and stations equipped under the reign of Ptolemy II.23

The stratigraphy of Room 12 illustrates very well a phenomenon that the archaeologists often experience while excavating an Eastern Desert fort: the disappearance of the first levels of occupation inside the building due to systematic clearings.24 This means that the only complete stratigraphic sequence is to be found outside, in the dumps, and not inside where only the last phases are preserved. In the case of Room 12 of Bi’r Samut, it means that floor 12.07 is not the first, but probably the second to last floor of the room. The earlier ones simply disappeared during the cleaning of the fort. Considering that, the installation of the jars in Room 12 may have occurred after the 14th year of the reign of Ptolemy III (234 BCE) just as well as after the 14th year of the reign of Ptolemy IV (209 BCE).25 In this case, the find context of the tituli picti is unfortunately useless in determining which hypothesis is more likely.

3 Conclusion

To conclude, two of the three case-studies presented here—the tituli and owner’s marks from Samut North and the Payba-ostraca from Bi’r Samut—show that connections between content and the find location of the objects bring tangible results. Most immediately, this approach can help us not only determine a likely date for the text but also understand the context, as in Samut North, where the function of several rooms has been successfully identified through this method. The third example—Room-12 tituli in Bi’r Samut—shows that, even in a well-preserved context of an isolated fortress in the desert, the stratigraphic information can be slim and inconclusive. The same uncertainties can be found in the content and the context of the documents.

23 The Ptolemaic road system is likely to have been created under the reign of Ptolemy II, after the foundation of Berenike. See Redon 2018, 22–24 on the date of construction of the station of Bir Alayyan and the forts of Kanalis and Abbad.
24 See, for instance, the disappearance (due to cleaning) of the internal occupation levels of the fort of Krokodilo, while the finds in the dumps clearly indicate that the fort was occupied for several decades, from the reign of Vespasian to the reign of Hadrian (Brun 2006b, 83). This phenomenon is well described by Brun 2006a, 61, about the Roman forts of the Myos Hormos road.
25 The fort was probably abandoned at the very beginning of the Theban revolt (see Redon 2018, 19), which broke out between 208/207 and 206/205 BCE; there would be enough time between 209 and that date to have two beaten earth floors in a room (that kind of floor is particularly fragile and it is necessary to redo or reinforce them often; at Samut North, some rooms had three floors, while the site was probably occupied for only two or three campaigns of some months). On the date of the beginning of the revolt, see Veïsse 2004, 11–26 (early date); Depauw 2006, 106 (late date).
Ostraca and *Tituli Picti* of Samut North and Bi’r Samut (Eastern Desert of Egypt)

**Fig. 10:** Bi’r Samut, Room 12, with the 12 Egyptian amphorae reused as granaries, view from North.

**Fig. 11:**
BS inv. 1137 = TM 818074, with a zoom in on year 14.
Fig. 12: Bi‘r Samut, Stratigraphy of Room 12.
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