

## PRELIMINARY REPORT ON THE SECOND SEASON OF THE ITALIAN ARCHAEOLOGICAL MISSION IN THE EASTERN DESERT OF EGYPT

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The fieldwork was carried out between 11th and 25th of January 2015<sup>1</sup>. The first day was devoted to check - after three years of absence - the condition of some of the previously identified sites, and specifically sites 1, 3 and 7 (see map of the sites, Fig. 1).

Site 1 and 7 underwent major damages, due to illegal diggings, which seriously affected the conservations of structures and features of the two sites; the hieroglyphic inscription of site 3 (Bragantini, Pirelli 2013, 74-78) was intentionally destroyed with a stone (Fig. 2), and a religious inscription was added using a charcoal stick.

Starting from the second day, the activities of the mission were split into two groups. One team resumed the archaeological and geological survey, aimed at progressing in the investigation of the geological and hydrological characteristics, and collecting old and new information and documents about the human presence in the area, from Prehistoric time to Roman era. The second team began the archaeological investigation on the site of the Graeco-Roman Station. Work here was articulated into three main activities: excavation of selected sectors of the "station"; surface collection and study of the pottery scattered on the site, and investigation of the lithic assemblages characterizing the western sector of the terrace.

### *Work on 2012 sites*

#### Site 1 - "Graeco-Roman station"

Mohamed Hamdan reports that the station was built on a Miocene terrace about 5m above

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the floor of Wadi Gasus, so it was protected from the high flash floods. The foundations were built on a sandy silt unit probably dated to Pleistocene, laying on a thick (up to 4m) unit of poorly sorted matrix supported conglomerated, the clasts are represented by abundant basement rock fragments of different sizes. They are mainly rounded, indicating distal origin from the upstream of Wadi Gasus. The beds of the terrace are tilted in NE direction by an angle of 30°. A preliminary investigation of the stones used in the structures was also carried out.

The surface of the terrace was surveyed by G. Lucarini. The portion of the terrace right to the west of the Roman remains revealed the presence of several basalt cobble structures and hearths, which are probably pertinent to a Mid Holocene occupation of the region. Nine hearths detected on the surface of the terrace can be considered as the typical *Steinplätze*, common in Egypt in numerous sites of the Western Desert and also known in other regions of the Sahara (Gabriel 1987; Gallinaro 2014). One of the hearth was mapped with a north oriented, 1x1 m, grid including the entire scattering area of the surface gravel (Fig. 3). The hearth deposit did not yield any element of material culture.

In order to better define the chronological and cultural framework of the area, some lithic artefacts scattered on the surface have been analytically described. From comparison with similar materials coming from the Egyptian Western Desert, a Mid Holocene exploitation of the area, possibly around c. 6000 BC, can be assumed (Lucarini 2014). Moreover, a few tools manufactured on *Levallois* flakes witness an earlier occupation of the site that date back to the Middle Stone Age (hereafter MSA).

It has to be stressed that, whilst the historic pottery is massively present on the eastern area of the site, in correspondence with the Roman structures, and where the lithic artefacts are almost completely absent, on the contrary, moving towards the western edge of the terrace, pottery sherds become scant and the number of

lithic elements increases significantly. This could support the hypothesis that the two elements of material culture are not associated and that they could be pertinent to two different phases of exploitation/occupation of the area.

On the base of the results of the previous campaign (Bragantini, Pirelli 2013), a systematic surface collection of pottery sherds had been planned in order to identify and verify typologies, chronology and percentage of the ceramics scattered on the site (Fig. 4). A database was prepared to include the records of the diagnostic fragments.

The pottery is heavily scattered on the terrace. I. Incordino and A. Lena surveyed the area firstly focusing on the Western fringe of the Station (Survey 1), where several amphora body fragments of different fabrics and some potsherds of possibly jugs, large *zirs* and few pieces of Marl C Middle Kingdom jars were counted (Fig. 5). Moreover a noticeable cluster of pottery (Survey 2) was documented through photogrammetry (Fig. 6).

An area of more than one square kilometer bounded by the “Middle Building” and the “Eastern Building” was divided in 12 squares (Survey 3) and carefully examined to understand a possible regular distribution of the potsherds. The survey revealed a concentration of fragments (some of which freshly broken) in the central squares where the surface is heavily disturbed.

Among the diagnostic pieces registered, mainly fragments of cups and bowls made of marl clay, *zirs*, jugs and cooking ware are associated to the Roman occupation, while sherds of large storage jars for water supply (of Marl C fabrics and its variants) are datable to Middle Kingdom (specially “bag shaped” jars from the late XIth to the early XIIIth Dynasties, occurring also in the nearby site of Wadi/Mersa Gawasis where they represent a relevant component of the assemblage). Moreover, 36 fragments (Fig.7) of Upper Nubian pottery were recorded, about 4,8% of the total pottery amount, dated from early to mid-2nd millennium BC (A. Manzo, pers. communication). Nubian sherds with similar decoration patterns have been found at Mersa/Wadi Gawasis associated to Middle Kingdom materials.

The nearby areas (Surveys 4 and 5) were examined to complete the picture of the occupation phases of the terrace. The total

amount of the recorded potsherds is 735 pieces. As a preliminary result, it is possible to state that two main chronological phases are represented on the site: Middle Kingdom (Pharaonic and Nubian fragments, 18% of the total) and Roman Imperial period.

Only one small intact bowl with an out-turned rim, a ring foot and slightly carinated in the lower wall, found in the area of the “Eastern building”, could refer to a local imitation of the Hellenistic Black Ware (Rotroff 1997, 158-159; as regards the local production of “Black Ware” cfr., among others, Gill 2012) (Fig. 8).

Only once the study has been completed - and possibly supported by data from the stratigraphic analysis - along with the identification of the production areas (with particular attention to local imitations), we will be able to define the chronological limits of the frequentation of the area and the function of the buildings. This could contribute to better understand the relation between artefacts that are separated by a wide chronological timeframe.

G. Ciucci conducted two limited excavations. The first trench (I) was opened in the area in front of the “Chapel” where a round shape with a remarkable concentration of pottery fragments was visible. Prior to the excavation activity, the area was rendered through photogrammetry (Fig. 9). The excavation revealed a reduced stratigraphic profile: some irregular cuts of uncertain chronology and function, were dug in the oldest level of use. The largest pit was filled with discharged potsherds used for the production of “Egyptian blue” (Bragantini, Pirelli 2013, 68)<sup>2</sup>: the presence of plastic, found inside the pit mixed with the pottery, dates the filling to recent times. As we found only this class of pottery, one could hypothesize that the selection was carried out during Sayed excavation in the Seventies of the past century. For the moment, chronology and functions of the pit cannot be ascertained.

Trench 2 was opened within the “Eastern Building”, near the western wall (Fig. 10), where a section of a (food?) oven is still visible (Bragantini, Pirelli 2013, fig. 47). The oven is made of layers of potsherds laid out horizontally and it is preserved for around 0.25m height; a very firm light brown mortar (the same used in

<sup>2</sup> A preliminary account of the fragments in order to ascertain the MNI (minimum number of individuals) gives an amount of more than 156 base fragments.

the building walls) fastened them. On the pottery fragments, firing traces are still visible.

Near this evidence, a modern semi-circular pit is observable, in which modern items were found: it is likely that this pit also had been excavated during Sayed's work.

Summing up, neither Trench 1 nor Trench 2 produced evidence of ancient layers with coherent artefacts and not disturbed by recent activity.

#### Site 3 - Galena mine

Mohamed A. Hamdan carried out a geological and geo-archaeological investigation of the Late Period galena mine (Bragantini, Pirelli 2013, 74-78).

The mine shows oval or circular openings 1-3 m deep in the top surface of the galena bearing bed and then extends parallel to dipping plain for about 20m in both direction and 5m parallel to the strike line.

6 openings were recorded and all in the upper galena bearing unit. Two or three of them extended to the lower galena bed. The site shows high vandalism and is highly disturbed.

#### Site 7 - Mining site

Topographical work was carried out by A. D'Andrea and M. Barbarino using a total station Trimble M3 and a handheld GPS device Trimble Juno SB. The plan produced in the 2012 season was updated by positioning around 34 "huts" (Fig. 11). Ciucci and Lena conducted preliminary work to produce a 3D model of one of the main evidence on the site, the rectangular structure located higher and quite apart, so that a controlling function might be envisaged. Meanwhile, a preliminary record of these huts has been conducted. The huge extension of the area will require a major work to be done in order to complete the topographical map of the site.

Following the first season fieldwork and the subsequent study, we wanted to check the possible existence of a secondary *wadi*, connecting Wadi Gasus with Wadi Gawasis (Bragantini, Pirelli 2012; 2013). According to explorers of the previous centuries (Burton 1831; Weill 1910) a shortcut might be used by the Pharaonic expeditions proceeding from the Nile Valley towards the Red Sea and vice-versa. Based on a previous analysis of the area through Google earth, we identified a *wadi*, likely to be the right one: the travel by car was very fast (15

minutes) and without obstacles and, on the way back, the path was easy and comfortable to walk through. The geological nature of the *wadi* (mostly evaporites and flint pebbles) also revealed to us that this could not be the site of provenance of the two Middle Kingdom inscriptions (by Khnumhotep and Khentykhetywr) written on a basalt support, whose original location has not yet been found (Bragantini, Pirelli 2013, 59-62).

On the other side of the *wadi*, we also checked the coordinates of the site of the big scene of Psammetik (Bragantini, Pirelli 2013, 79-85), kindly given to us by D. Klemm; its former location was confirmed by our guide, moreover remembering that in his youth the inscribed slabs had been stolen.

#### Sites recorded in 2015

A series of Prehistoric sites - identified by G. Lucarini - are mainly concentrated on the terraces on the sides of Wadi Gasus. A total of 11 Neolithic sites, 6 MSA sites and 3 areas showing both the presence of Neolithic and MSA evidences have been detected. These sites are mainly lithic assemblages or lithic workshops areas. No tumuli, circular structures or hearths have been detected. Sometimes the lithic assemblage are connected with raw material (chert) procurement areas which are also abundant along the wadis. Along a tributary *wadi* connecting Wadi Gasus and Wadi Gawasis, a group of MSA sites have been found. One of these yielded an outstanding finding: a broken biface that can be ascribed to an early stage of the MSA occupation of the region, probably older than 100.000 years ago (Fig.12).

#### Site 11

Surveying this area we preliminarily documented a new site, probably to be identified with the "Roman (?) watching point" of an old plan published by Sayed (Sayed 1978), where we plan to work in a near future. Six circular structures of unknown function were acquired by Total Station and surveyed by uncalibrated photogrammetry techniques. Among the pottery fragments scattered in the area, comparisons with the pottery recorded on the Roman Station could be done.

As the current condition of the track does not allow to proceed westwards along Wadi Gasus after the point we reached three years ago, we

decided to start the new survey from Wadi Safaga to reach the area of Wadi Wasif and Wadi Abu Deyeba (Bisson de la Roque 1922; Tregenza 1955, *non vidi*), recently visited by Harrell and Sidebotham (2006).

Site 12 - Roman fort on the sea.

At the mouth of Wadi Safaga, very close to the new roadway, we visited the ruins, almost completely buried by sand, of a Roman fort on the Via Nova Hadriana (Harrell and Sidebotham 2006). At a first view, the building techniques look similar to those in the “Graeco-Roman station”; basalt and granite boulders are used in the walls, which also preserve remains of a fine white plaster lining a doorway. Burnt bricks are also present (25 × 10 × 5cm).

Site 13 - Water source

About 9km inland on the same *wadi*, on the left side, we recorded and geo-referenced a water source still active.

Site 14 and 15

Amethyst quarry and temple (?).

During the survey, we also visited the two sites recently published by Harrell and Sidebotham (2006).

Site 16 - Bir Wasif.

At the base of a high steep hill, characterized by long traces of calcareous deposits, we observed a deep natural basin nowadays dry, which must have functioned as a huge water provision in the past (Fig. 13). Unexpectedly, no pottery was noted on the site.

Site 17 - Shelters with fireplace

On a high position with a commanding view on a tributary *wadi*, parallel to Wadi Wasif, we identified a site with three different rock shelters, partly adapted by human activity (Fig. 14). Pottery remains, apparently from different periods and in different condition of preservation (many of them in joining pieces), are scattered on the site. Among them, isolated fragments of Roman kitchen wares were also noticed. An earth oven, made of large fragments of pottery surrounded and strengthened by stone slabs, was still in place in front of one of the shelters (Fig. 15).

This evidence points to various human activities having taken place on this high, strategic spot, in different periods.

*Concluding remarks*

All the points taken by Total Station have been processed and added to the CAD maps of the two sites by A. D’Andrea and M. Barbarino. All surveys taken by uncalibrated photogrammetry have been processed and referenced to the local system; these models can be used to extract maps and sections and to render graphically the shape and the features of the structures.

An interesting finding of this season, on the Graeco-Roman station, is the miniaturistic bowl identified near the section (created by illegal excavation) of the northern wall of the Eastern Building (Fig. 8). The non-functional nature of miniaturistic pottery and the Ptolemaic chronology of the item re-open the problem of the nature and date of the site: up to now, this is the only new finding which could be contemporary of the “hermaphrodite statuette” (to be identified as an unfinished statuette of Min?) published by Sayed (Sayed 1977, 145-146, pl. 9 d-e) with a generic indication of “Graeco-Roman period”. The researcher found it among other objects of the same period after having cleaned the remains of the “small chapel”, thus out of a stratigraphic context as our bowl, but anyway to be linked to the religious sphere. On the contrary, most of the archaeological materials discovered so far on the site, both from the MK and the Roman Era, are of domestic use: the former were in majority storage jars for water supply to Desert Road expeditions, the latter were mostly kitchen wares. This adds one more element to the complex situation of pottery on the site, as we are confronted with a high level of Middle Kingdom residual pottery, side by side with Roman/Late Roman pottery.

All these questions lead us to think that the so called “Station” deserves a deeper investigation notwithstanding (or precisely because of) the poor preservation and the continuous dangers of illegal activities. As already remarked in our previous paper (Bragantini, Pirelli 2013, 69-70), the building techniques and the general arrangement of the complex do not fit the pattern of Eastern desert *praesidia*: structures and plans and the lack of defensive walls can better be compared to the “Roadhouse” recently studied in the Libyan Desert (Rieger *et alii* 2012).

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Fig. 1 - Itineraries of the 2012 and 2015 surveys (Google Earth, graphic processing Pirelli, D'Andrea)



Fig. 2 - Site 3, Galena mine: hieroglyphic inscription, intentionally destroyed (photo Pirelli)



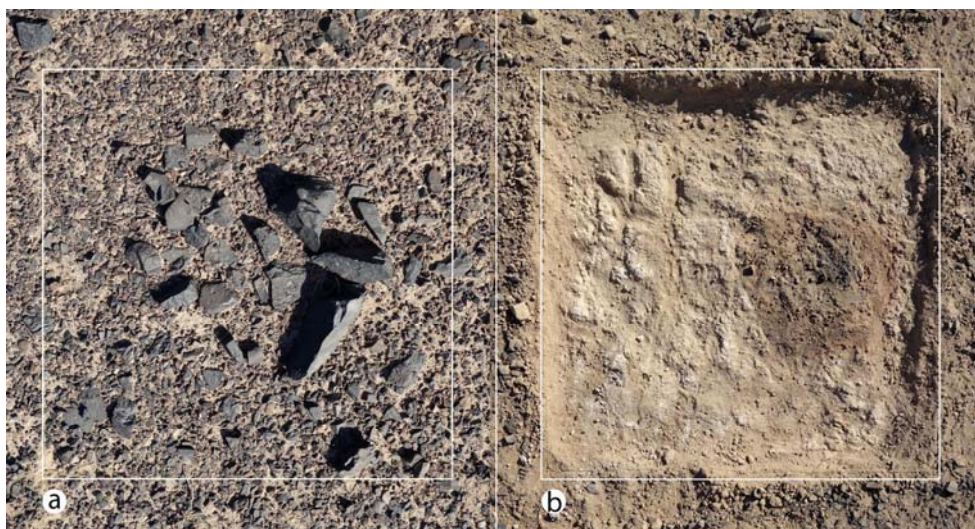


Fig. 3 - Site 1, "Graeco-Roman station": Steinplatz hearth; a: surface; b: layer I (grid: 1 × 1m, photo Lucarini)



Fig. 4 - Site 1, "Graeco-Roman station": Pottery from the Surveys (photo Incordino)



Fig. 5 - Site 1, "Graeco-Roman station": Survey 1, fragment of Mar C bag shaped jar (photo Incordino)





Fig. 6 - Site 1, "Graeco-Roman station": Survey 2, orthophoto (from close-range photogrammetry, Barbarino, Lena)



Fig. 7 - Site 1, "Graeco-Roman station": Survey 3, rim potsherds of Nubian pottery (photo Incordino)





Fig. 8 - Site 1, "Graeco-Roman station": imitation of Black Ware bowl (photo Lena)



Fig. 9 - Site 1, "Graeco-Roman station": Area of Trench I (photogrammetry Ciucci, Lena)

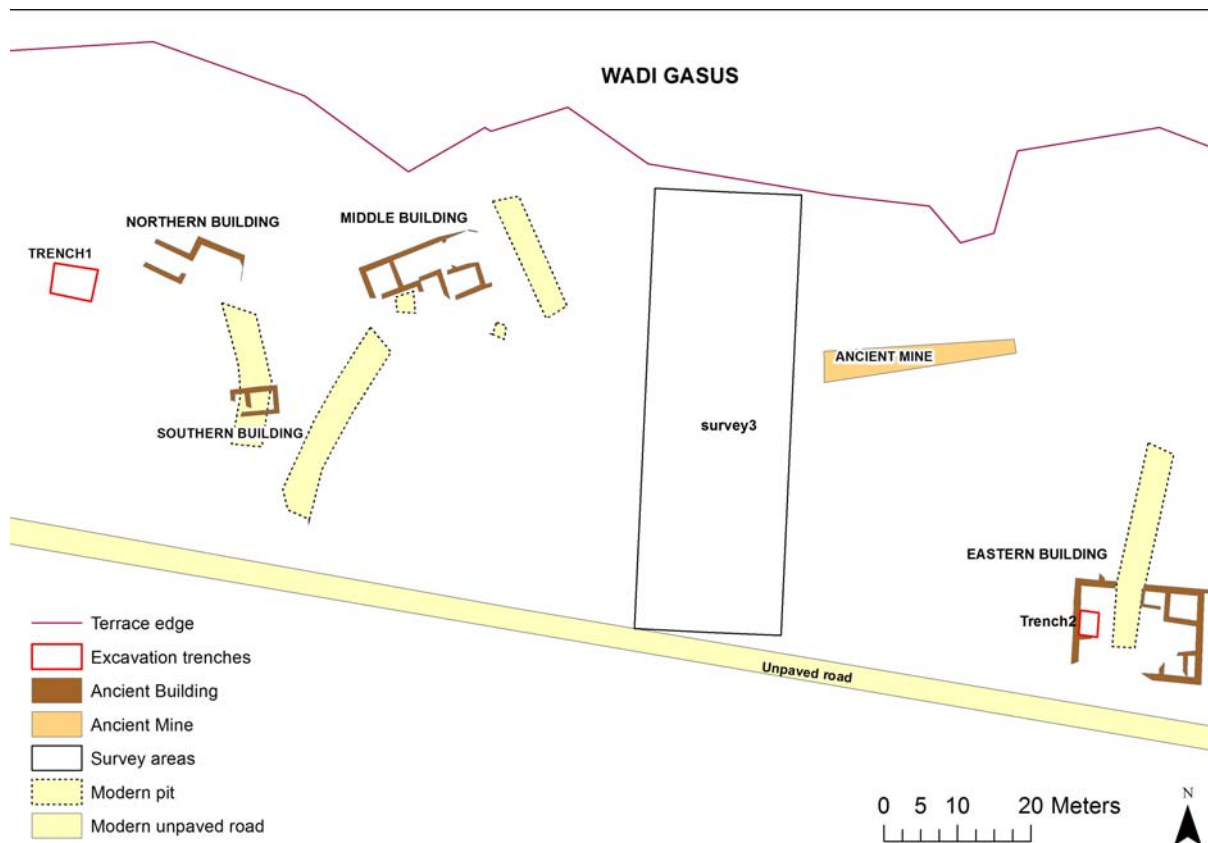


Fig. 10 - Site 1, "Graeco-Roman station" (Barbarino)

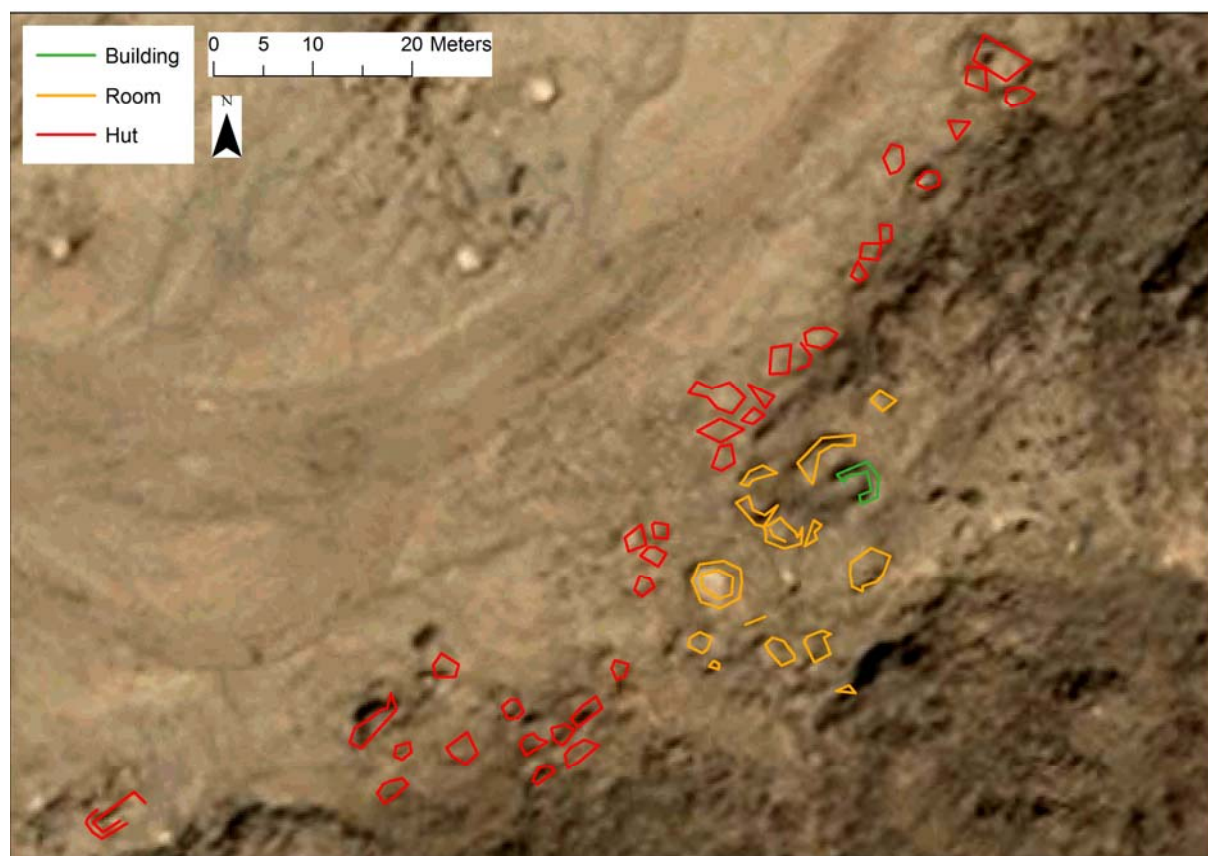


Fig. 11- Site 7, Mining site, topographical survey (Barbarino, Ciucci, D'Andrea, Lena)





Fig. 12 - Wadi connecting Wadi Gasus and Wadi Gawasis: Early MSA biface (photo Lucarini)





Fig. 13 - Site 13, Bir Wasif: natural basin



Fig. 14 - Site 14, Shelters with fireplace: rock shelter (photo Pirelli)



Fig. 15 - Site 14, Shelters with fireplace: earth oven in front of one of the shelter (photo Pirelli)