

## **SPANISH ARCHEOLOGICAL MISSION in HERACLEOPOLIS MAGNA (IHNASYA EL MEDINA, BENI SUEF). 2017 Season**

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The 2017 campaign in Herakleopolis Magna took place during the month of March 2017. The Project is under the supervision of the Department of Egyptian Antiquities at the National Archaeological Museum in Madrid and has been carried out with the help of the Ministry of Egyptian Antiquities and its office in Beni Suef. This year the sponsors have been: Gaselec Foundation and Palarq Foundation.

The team was composed of:

M. Carmen Pérez Die, Director. Gema Garrido, Antonio Gómez and José Javier Martínez, Archaeologists. Antonio Guio, Draftsman. Nanda Pascual, Restorer, Salvador Berenguer, Photographer. Bettina Bader, Ceramologist. Sayed Ali Ghassab, Arabic-Spanish translator.

On behalf of the Antiques Service in Beni Suef the group was composed of: Ahmed Abdelazim (Inspector of Archaeology), Asmat Abdallah (Assistant Inspector) and Mohamed Ismail (Inspector of the Warehouse).

In agreement with the permission of the Ministry of Egyptian Antiquities we have carried out the following works:

### **THE TEMPLE OF HERYSHEE**

#### **1 . -OBJECTIVES**

- 1º.- Analyse the construction systems of the building.
- 2º.- Determine the chronology of the different architectural elements that integrate it and the different construction stages
- 3º.- Locate the remains of the existing Pylon between the First Open Courtyard and the Peristyle Courtyard.

The temple has several rooms (Fig 1): First open court, peristyle court, portico, hypostyle room, rooms and sanctuary.

## 2.-METHODOLOGY

**2.1. Registration system.** They have been based on the Harris matrix (Harris, 1979 and Carandini, 1981), which identifies the excavation fillings / structures giving each a specific number (stratigraphic units).

During the excavation, a total of 152 stratigraphic units have been identified. Each of them has been photographed; we have measured the highest and lowest levels, and they have been placed in the map using Photogrammetry.

A total of 8 stratigraphic surveys were also carried out, distributed among the different rooms and parts of the temple. All in all, we have worked in an area of 300 square meters.

**2.2. Documentation system, by means of Digital Photogrammetry.** Planimetry is achieved through 3D models generated by different computer programs, and from them orthophotos are obtained: elevations, sections, profiles, etc. (Fig 2). The use of a kite with a camera, allowed us to obtain aerial views and to develop an aerial Photogrammetry of some areas of the Temple (fig 3).

**2.3 Projects developed.** The following works have been carried out:

**2.3.1. Initial cleaning:** (Fig 4). It consisted in the removal of all the vegetation that covered the temple.

**2.3.2. Topography. Checking grid axes:** (Fig. 5). Aerial photogrammetry works have allowed us to identify the main axis of the temple and the grids in which the terrain has been divided.

**2.3.3 Profile Analysis Works:** (Fig. 6). Determine the exact location in the profiles of the land extracted in the excavations of Petrie or Naville. It has been made in the east and south profiles of the First Patio.

**2.3.4. Manual excavation:** (Fig.7), isolating the archaeological material in order to establish a historical sequence.

**2.3.5. Works of photographic and aerial documentation:** (Fig. 8). High-quality photographs were taken using a kite. The photos obtained have been used to create a photogrammetry of the temple area (Figure 1).

### 3. EXCAVATION

Thanks to the underground extraction of water, conducted by the Antiques Service in Beni Suef, we have been able to reach a depth of 60 cms. In this way, we have reached, inside the Peristyle Patio and in the Hypostyle Room, parts not removed before by F. Petrie or Naville.

We will now describe the excavations carried out in the different rooms, from the South to the North:

#### 3.1 First Patio. Southeast Area.

The lower part of the Colossus of Ramses II is located in this area (Fig. 9). The objectives have been:

**3.1.1.-Location of new fragments belonging to the colossus sculpture**, since at the moment we only have the lower part and a shoulder. We have thought about reducing the area surrounding the sculpture to determine if there are more fragments that fit with it.

Work began at the feet of the colossus, at the southeast edge of the temple. In the first levels, a large number of pottery fragments were found, mostly dating to the LA7 (Late Amphora 7) chronology (Fig. 10). We also found some fragments of Aswan Clay type ceramic, a fragment of painted pottery (which appears in the 5<sup>th</sup>-6<sup>th</sup> centuries and also in the 8<sup>th</sup>-9<sup>th</sup> centuries)

As we proceeded, we were able to confirm a huge plunder hole, stuffed with many pottery fragments and some bricks, giving the filling a reddish colour.

Soon several soils were found, with fragments of ceramics from the New Kingdom and early Third Intermediate Period (Fig. 11). No other fragment of the colossus has been found.

The remains of a stone chapel were found behind the colossus. This structure is associated with the cult of the statue of Ramses II and, within it we found a multitude of Roman pottery terracotta, surely arranged there by the pilgrims who came to worship the statue of Ramses II (Fig. 12).

**3.1.2.-Locate and document walls surrounding the temple and the southeast corner**, excavated by López in 1966. Part of a mud-brick wall, which goes in an East-West direction, has been located in the south of this area. It might be the southern closure of the temple, but only a small part remains. The type of walls located indicates that this must have been a large room, outside the temple but attached to it. The overlap of soils indicates that this area was in use for a long period of time.

### 3.2. First Patio. Central zone

Two trenches were connected to each other, in the N-S and E-W directions, with only disturbed Roman ceramic fillings; there is no other material (Fig. 13).

At the moment we cannot extend the excavation of this patio, since the land removed by Petrie and Naville occupies all the surroundings, reaching a height of more than 4 meters.

### 3.3 Peristyle patio. South Area

Works in this area had not taken place until this campaign, because the underground water did not allow us to do so. We know that the Pylon that would separate the First Courtyard from the Peristyle Patio should be here. Some blocks of decorated pink granite were found on the surface. The presence of these blocks seemed to indicate the destruction of an architectonic structure of some importance. We began to excavate here and indeed the foundation stones of the pylon appeared. The pylon was dismantled in ancient times, and there are no remains of its outer part.

#### 3.3.1 Pylons

The excavation has been carried out in three areas, which have been connected to each other: East side of the Pylon, West side of the Pylon, Threshold of the Pylon. On the outside, an inscription of Senusret II was found. The results were:

**3.3.1.1. East Side of the Pylon** (Fig. 14). We have been able to verify the massive plunder that the east side of the Pylon suffered, since we have found an enormous empty pit, without stones. It is 14 m long and 3 m wide and it extends from west to east, from the access door of the Pylon to the east side profile. The width exceeds 7 m, with a depth of 1.20 m.

In addition, we have been able to locate **the foundation pit of the pylon** with strata dating to a time previous to the construction of the Temple. Large quantities of late Roman pottery have also been recovered.

**3.3.1.2. West side of the Pylon** (Fig. 15). The structure of the west side of the Pylon presents a better state of conservation, despite the crack in its western end.

In order to build the Pylon, a large pit was excavated. The stone blocks of the foundation were placed inside, in at least two overlapping rows. The lower row shows smooth slabs carved and reused and the upper row, large ashlar. Over these two rows we found large blocks: the upper face of these is engraved with the line that indicates the location of the Pylon's wall.

We cannot determine the dimensions of the pylon, but we can assume that it should have been about 36 m in length and a width of about 9 m.

The pit opened to place inside the stones of the pylon contains some ceramic remains, such as containers to make bread that can be dated between the Middle and New Kingdom, thus assuming the pylon was constructed at this time.

Finally, as is the case on the east side, a process of massive plundering of the blocks and ashlar at the top of the pylon has been documented. The material recovered in the pit allows us to date this plunder maybe to Roman times.

### **3.3.1.3. Pylon Gate located between the First Patio and the Peristyle Patio**

The gate has at least two phases: based on the ceramics, it was built in the Middle Kingdom or beginning of the New Kingdom, whereas the remodelling would have taken place in the late Roman period (Fig. 16).

On the other side of the pit is a red granite lintel from Senusret II. This may indicate that this pylon, erected in ancient times, was dismantled in the Roman period (Fig 17).

## **3.4 Patio peristyle. West Area**

The objective was to excavate this area to distinguish the different construction phases and to locate the Court floor, as well as to continue with the cleaning and consolidation works for the open-air museum of the temple. It covers an area of 175 m<sup>2</sup>.

The work has consisted on the excavation and cleaning of superficial strata in which only Roman and late Roman material have been documented. This material was most likely deposited in Byzantine and Islamic times, as a result of the plundering suffered by the site, as well as some pharaonic material with no context

## **3.5 Peristyle Patio. East Side**

The eastern area of the patio was excavated to locate the closing wall. There is evidence of excavation of this sector in the campaigns of F. Petrie. The profile was cleaned and we documented the existence of a hole filled in the last 100 years with a collapse of large stones. One of those stones bears an inscription with the cartouches of Ramses II (Fig.18). This fragment was placed on its own brick pedestal for exhibition in the same site, as the rest of unique pieces found in it and which are exhibited as an open-air museum of the temple of Heryshef itself.

### **3.6 Stratigraphic surveys**

Thanks to the dewatering project, the water from the water table has decreased, thus allowing us to carry out a series of stratigraphic surveys in different parts of the Temple, reaching depths never attained before.

#### **3.6.1. Survey 1**

Fig. 19

Survey located on the east side of the Peristyle Patio, between the first and second columns of the southeast end of the Patio. We have been able to verify how the columns of the peristyle patio, now disappeared, were constructed. All columns have the same foundation system: a well of circular or quadrangular plant was excavated, inside which two rows of overlapping slabs were placed and oriented in the opposite direction. The well and the slabs of different thicknesses were filled with sand, which served as a levelling system,. Two semi-circular stones that form the base of the column were placed over them. The well has a depth of about a meter and the base exceeds 0.60 m.

The material recovered in this well system can be dated to the New Kingdom, Allowing us to date the column to this period.

#### **3.6.2. Survey 2**

Figs. 20-21

The survey was carried out in the Peristyle Patio. The floor is covered with a series of stone slabs, between the two columns. The analysis of the filling seems to indicate a very late (Roman) chronology for the level of the floor.

The pottery associated with the foundation pit of the columns is quite abundant, ranging from the Second Intermediate Period to the beginning of the New Kingdom, previous to Thutmose III.

#### **3.6.3. Survey 3**

Fig. 23

The survey was carried out between the outer NE corner of the limestone wall surrounding the Portico and the Hypostyle Room. The results obtained in this third survey have allowed us to detect the most complete chronological sequence in all surveys. We have documented, as well, intact levels and dwelling structures, prior to the construction of the temple walls, and hints of the existence of major religious building reforms, once the walls were constructed.

#### **3.6.4 Survey 4**

Fig. 22

Survey 4 is located on the outer wall of the eastern temple closure. We have cleaned the surface layer and the different units, in levels with a depth of 50 cm in which we have documented Roman and late period ceramics, until reaching the water table level of the temple. This survey has not provided conclusive data.

#### **3.6.5. Survey 5**

Fig. 24

This survey took place in the SE corner of the Hypostyle Room. We have been able to analyse the subsoil of this room and the constructive system of its walls and columns. Different constructive moments have been detected, some of which have been dated due to the recovered ceramic material.

1.- First filling: This filling can be dated to the beginning of the New Kingdom, before Thutmose III.

2.- Second filling: The material is homogeneous and can be situated between the Middle Kingdom and New Kingdom.

#### **3.6.6 Survey 6**

Fig.25

This survey was performed in the centre of the hypostyle room, where the level was lowered 90 centimetres reaching the water table. In this survey we have found material from different chronologies, some of which seem be dated to the Middle Kingdom, although classification and confirmation are still pending.

#### **3.6.7 Survey 7**

Fig.26

Survey 7 is located between the hypostyle room and room I. The soil level has been deepened to a total of 60 centimetres until the water of the water table rose exposing a large slab of foundation. The material found seems to indicate a New Kingdom chronology.

### **3.6.8 Survey 8**

Fig.27

Survey 8 is located in the area of the current entrance to the temple. This survey has yielded no results, and only late Roman materials such as a ceramic amphora have been documented, at a shallow depth.

### **Conclusions from the surveys**

The surveys seem to confirm the evolution of the temple in different historical periods, from the Middle Kingdom onwards; this is what we can assume from the ceramic material found. The remains of the New Kingdom also seem to confirm the constructive development of the temple in this time, as well as its cultic and cultural survival in successive Greco-Roman phases.

The remains that we find today in some parts of the temple could also evidence the phases of destruction and plunder that took place with the arrival of Christianity in late Roman times, and how the change in the state religion weighed in the abandonment and destruction of the temple.

## **4- DOCUMENTATION**

### **4.1.- Planimetry and drawing.**

During the present campaign the drawing of the general plan of the Temple of Heryshef has been adjusted. Four phases of construction have been distinguished so far: Middle Kingdom, Thutmose III, Ramses II and late Roman Period, which are still under study and verification.

The new excavated structures, in particular the pylon base, found on the north-west side of the first courtyard, as well as the plunder pit on the northeast side, have been incorporated into the general map.

Two blocks with hieroglyphic inscriptions have been drawn in the field: one was found in the area to the east of the porch (made of limestone and already mentioned by Petrie) and another one found in the threshold of the entrance of the pylon (north centre of the first patio), made of pink granite and with the cartouches of Senusret II.

An elevation of the Temple has been drawn to illustrate the relation of heights of the different constructive units.



## **4.2.-Photography and Video**

### **4.2.1-Photography**

To carry out the photographic work we have used a DSLR camera with different lenses and optics has been used, as well as a tripod for specific shots:

- Camera: Canon EOS 500d.
- Lens: Canon series L 24-105 mm f4.
- Lens: Canon 50mm f1.8.
- Tripod: Cullmann Nanomax 400t.
- Reflector: Lastolite 95cm.

Likewise, for the digital processing of the photographs, we have used proper software, as well as the necessary laptop:

- Adobe Photoshop CS.
- Lenovo B40.

### **4.2.2.-Video**

Material used:

The campaign was also recorded daily in video format. The material used was an HD digital video camera and a tripod for fixed shots:

- Camera: Sony NX70.
- Tripod: Cullmann Nanomax 400t.

In this task, just as in the last, given the excellent natural light, it was not necessary to use artificial light while recording.

## **5. CONSERVATION AND RESTORATION**

We have continued with the previous restorations made in the temple of Heryshef, the treatment of objects discovered this year and the restoration of the sarcophagus, which is kept in the warehouse of the mission.

## **TEMPLE OF HERYSHEF**

Our working methodology has been : (Figs. 28-34).

Documentation / review of the conservation status from the previous campaign

Surface cleaning of all blocks

Colour tests of plasters and mortars

Desalination of some limestone blocks

Cleaning and treatment of blocks discovered during this campaign

### **5.1 Interventions**

#### **5.1.1 Portico:** Figs. 35-38

- Mechanical removal of salts
- Repair of mortars
- Colour Reintegration
- Surface cleaning of blocks

#### **5.1.2 Capital:** Figs. 39-40

Before applying the mortar, a second plastic insulation layer was placed. The capital was placed in its location wedged with blocks of limestone.

#### **5.1.3 Architraves:** Fig. 41

- Elimination of soluble salts
- Cleaning of the surface

### **5.2 Treatment of blocks discovered in this campaign**

#### **5.2.1. Block nº 29:** Fig. 42-43

The restoration treatment has consisted on the removal of the thick layer of wet mud that covered the whole block. Subsequently, we have eliminated the soluble salts, by applying, to the entire surface of the inscription, paper pulp pads and distilled water. Once the treatment was finished, it was placed on a base made in the same way as the rest of the bases in the temple, to isolate it from the soil moisture.

### **5.2.2 Block nº 30. Lintel de Senusret II: Fig.44**

The block is large in size and made of pink granite. It appeared slightly tilted and semi-submerged in the water in the first patio. Once discovered and with the inscription almost completely cleaned, we decided, given the impossibility of its removal, to use geotextile and re-cover the block for its treatment in the next campaign.

## **5.3 Pieces restored in the warehouse of the Spanish archaeological mission:**

### **5.3.1 Stone Fragments: Figs. 45-47**

Fragment of a cartouche.

Small-decorated fragment. Limestone.

Small decorated fragments. Limestone. C-24

Fragment of inscription. Black quartzite.

All of them have received the same treatment, which consisted on the removal of dirt, graphic documentation and packaging with inert materials.

### **5.3.2 Necklace beads: Figs. 48-49**

The necklace was made of 9 faience beads of black glaze and 29 circular bone beads. It has been cleaned with alcohol and wooden sticks. Then they were packed in a methacrylate box padded inside with inert foam.

### **5.3.4 Coins: Figs. 50-51**

Set of coins, all illegible. They are all copper alloys, most of them undergoing an advanced deforming corrosion process with a dubious metallic core. All coins have undergone a treatment consisting on the mechanical cleaning of surface corrosion.

### **5.3.5 Ceramic sarcophagus: Figs. 52-54**

The piece as well as the classified fragments has undergone a complete surface cleaning. We have continued to match areas Aa and Ab belonging to the feet.

## 6.- OTHER STUDIES

### 6.1 Ceramics Figs. 55-64

#### 6.1.1 Studies on the First intermediate Periods ceramics:

Sector 20. Remains of cultic activity. There is a variety of open and closed vessels. Some of the pottery pieces show a mark. It resembles the material found in Sedment.

#### 6.1.2 Studies on the Heryshef Temple:

The upper strata belong to the Roman and Coptic times (late Amphora Roman 7) difficult to date, probably in the 7<sup>th</sup> century.

#### 6.1.3. Surveys:

**6.1.3.1 Surveys 1 and 2:** Ceramics from the beginning and end of the Middle Kingdom, as well as beginning of the Early New Kingdom, prior to Thutmose III.

**6.1.3.2 Surveys 3 and 4:** Middle Kingdom Material, Second Intermediate Period and Roman Period.

**6.1.3.3 Survey 5:** Late Roman period

**6.1.3.4 Survey 6:** New Kingdom

**6.1.3.5 Poll 7:** Middle of the New Kingdom

## 7.- CONCLUSIONS AND FINAL GENERAL VIEWS (Figs 65-69)

The Temple is oriented North-South and consists of: a **first open patio** that would give way to the **pylons**, preceded by the two statues of Ramses, of which only the bottom part of one is left, and is currently displaced on the side East of the first patio. This year we found the foundations of the stone pylons. After crossing the pylons, one arrives at the **peristyle patio**, but none of the columns or the royal statues has survived. On either side of the pylon there would have been a triad, one kept at the Cairo Museum and Fragment of the other one remain in the Temple .

A small ladder or ramp would give access to the portico, with the floor at a higher level. The background walls of the portico have survived and there are inscriptions relating to the *heb-seb* festival of Ramses II as well as the bases of the columns, found by Naville and distributed in different museums around the world. Two colossi of the Middle Kingdom reused by Ramses II would be located on the East-West walls.

A door gives access to the hypostyle room, which is much deteriorated and only some of the bases of the columns have been preserved. Further north another room, also with columns, would precede the sanctuary and the rooms of the boats and the treasure.



Fig. 1. Aerial photogrammetry of the temple.





Fig 2. Surveys 1,2,3





Fig.3. General view of the Temple



Fig.4. Cleaning the Temple





Fig.5. Topographical Measurement.

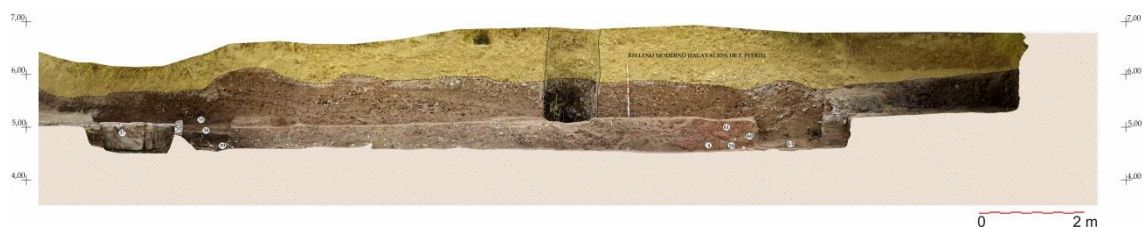


Fig.6. Profile south of the excavation



Fig.7. Excavation Works in front of the pylon



Fig.8. Works on documentation



Fig.9. Squares 167 y 17





Fig.10. Squares 167 y 170, pottery



Fig.11. Squares 167 y 170, floor with fragments of pottery



Fig.12. Small Chaple



Fig.13. Trench of the First Open Court





Fig. 14. Peristyle Court. Oriental side of the Pylon.



Fig.15. West side of the gate and big foundation of the pylons.



Fig.16. Gate of the pylon



Fig.17. Fragment of architrave of Sesostri II.





Fig.18. Fragment of Inscription

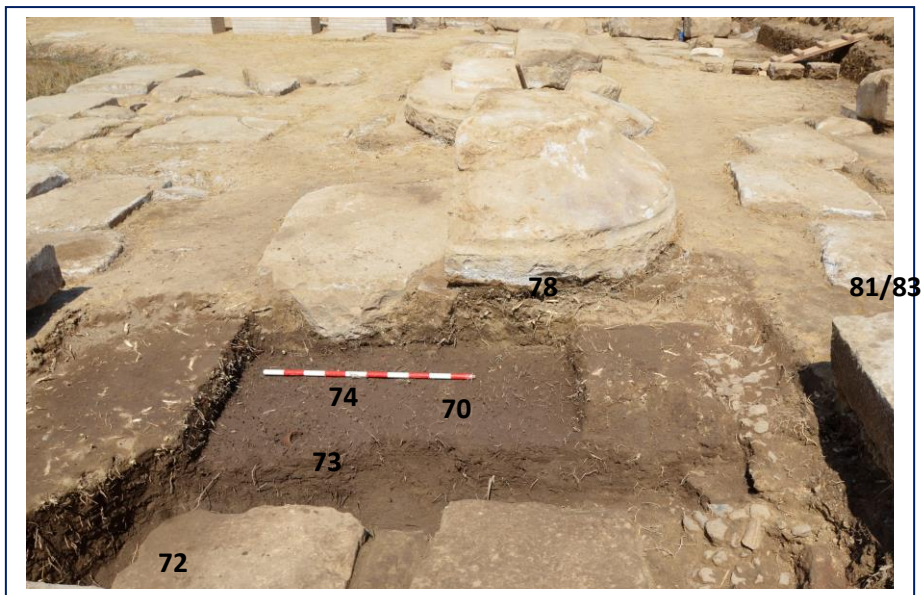


Fig.19. Survey 1



Fig.20. Survey 2

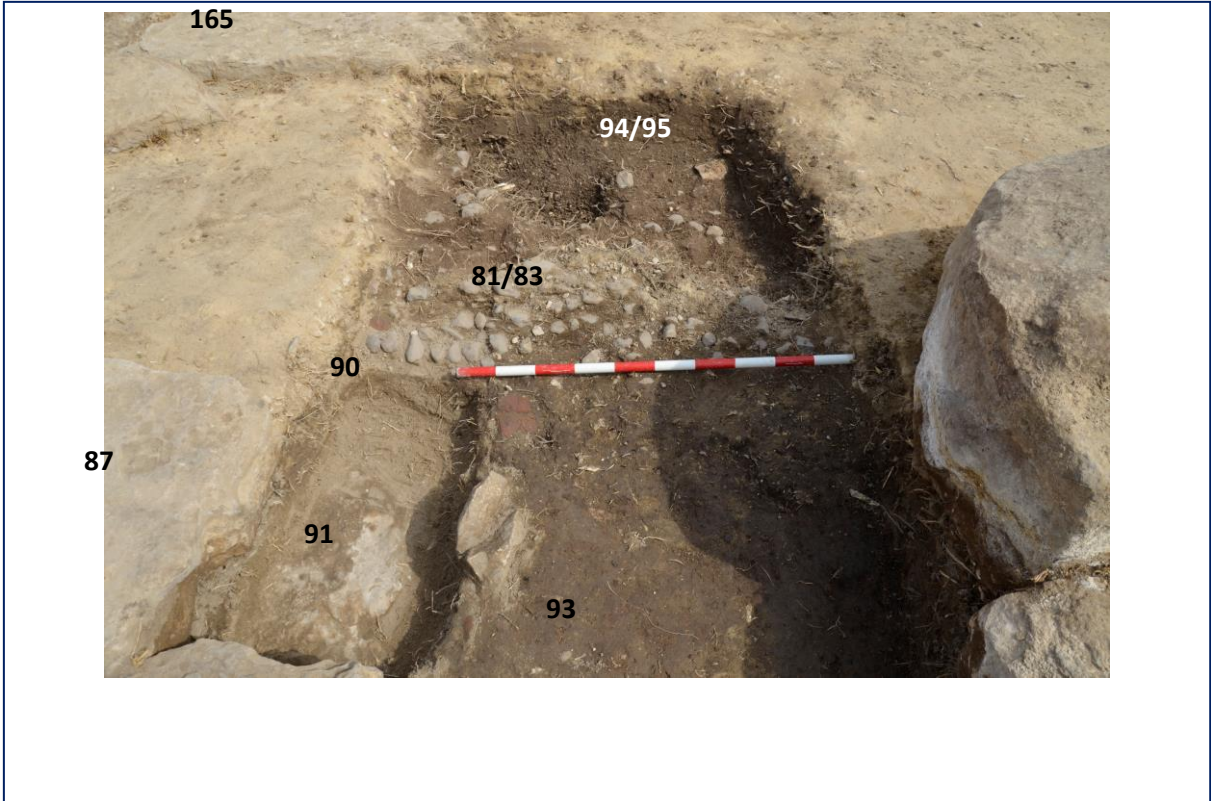


Fig.21. Survey 2





Fig.22. Survey 4

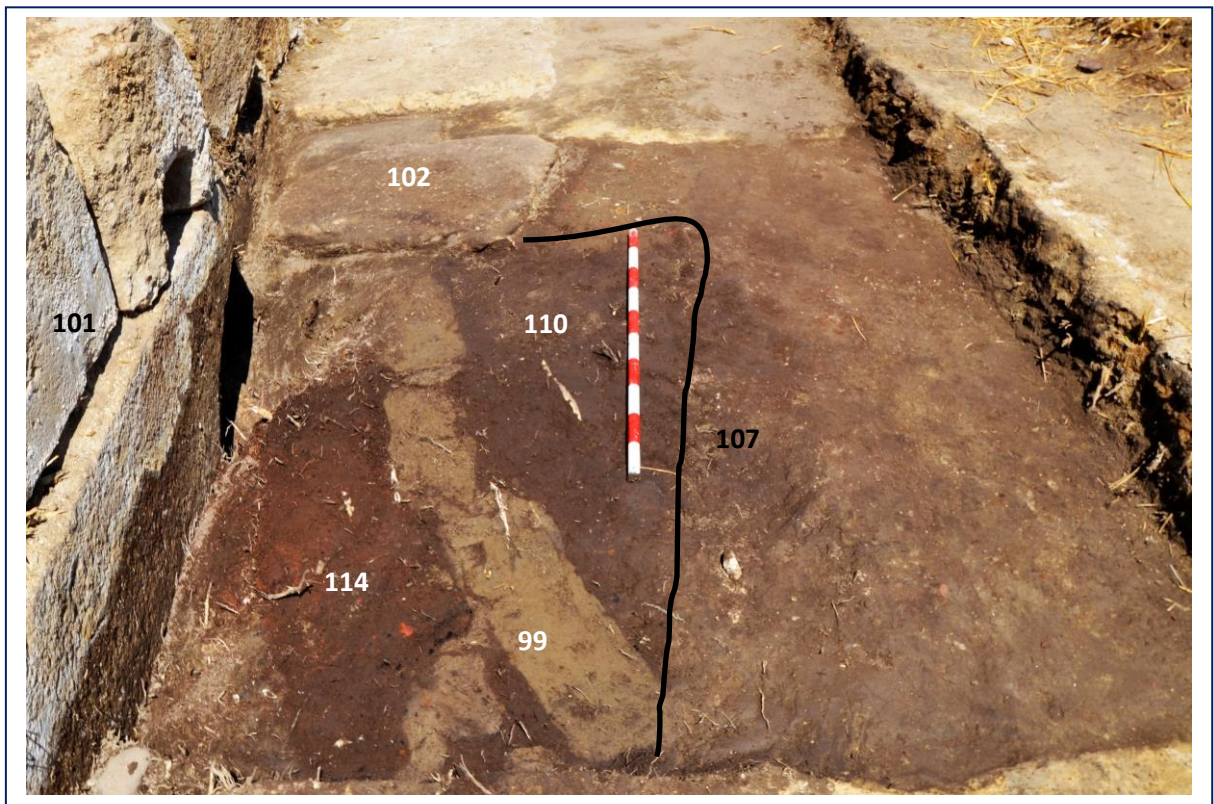


Fig.23. Survey 3

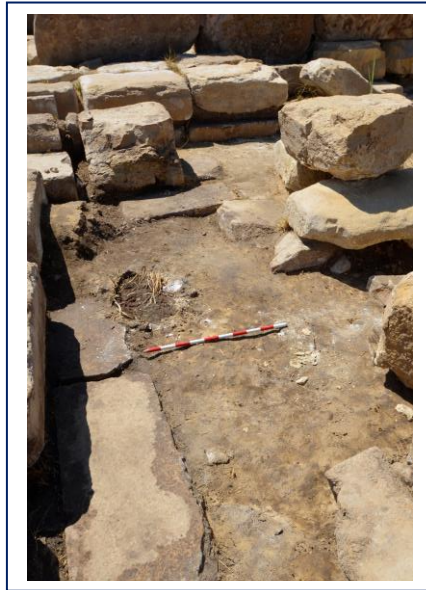


Fig.24. Survey 5



Fig.25. Survey 6





Fig. 26. Survey 7



Fig.27. Survey 8



Fig.28. Portico. East side



Fig.29. Portico. West side





Fig.30. Restoration



Fig.31. Basis of the columns



Fig.32. Second triad. Lower part

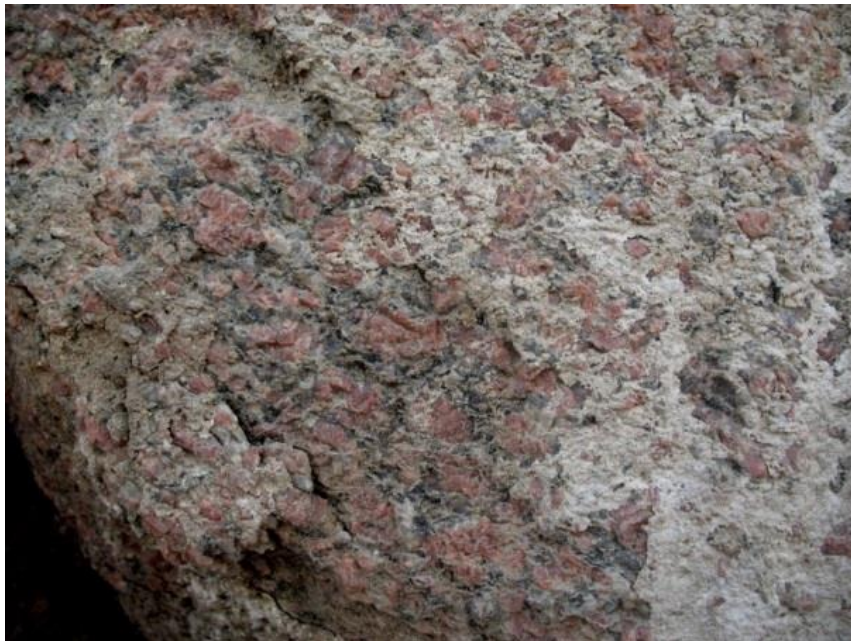


Fig.33. Granite Stone





Fig.34. Second Triad. Upper part



Fig.35



Fig.36



Fig.37





Fig.38



Fig.39



Fig.40



Fig.41



Fig.42



Fig. 43





Fig. 44



Fig. 45



Fig.46



Fig.47



Fig.48



Fig.49



Fig.50



Fig.51



Fig. 52



Fig. 53





Fig.54



Fig. 55. Pottery of FIP





Fig. 56. Pottery of FIP



Fig. 57. Pottery of FIP



Fig.58. Pottery of FIP



Fig.59. Pottery of FIP



Fig.60. Beads of pottery



Fig.61. Amphora from the Temple



Fig. 62. Pottery from the Temple



Fig.63. Pottery from the Temple





Fig.64. Pottery from the Temple



Fig.65. God Heryshef



Fig. 66 General View of the Peristyle court



Fig. 67. General View of the Portico



Fig. 68. Hypostyle Hall and Sanctuary. Remains



Fig. 69. Team 2017