

MARINA EL-ALAMEIN

CONSERVATION WORK, 1998

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From March 30 until May 31, 1998, the Polish-Egyptian Preservation Mission carried out its fourth season of work at the site of the ancient town of Marina el-Alamein.¹ The work of the expedition is focused on a complex of houses from the Greco-Roman period designated as H9, H9a, H10, H10a and H19 [Fig. 1].²

¹ The expedition was headed by Prof. Dr. Stanisław Medeksza, architect engineer from the Wrocław University of Technology. The team included staff members from the University's Architecture and Civil Engineering departments: Dr. Rafał Czerner, engineer architect; Dr. eng. Józef Adamowski, constructor; eng. arch. Wiesław Grzegorek, architect-constructor. Dr. Andrzej B. Biernacki (Institute of History, Adam Mickiewicz University in Poznań) served as the expedition's archaeologist; and Mr. Piotr Zambrzycki (Warsaw Academy of Fine Arts) took care of stone conservation. The Egyptian side was represented by Chief Inspector, Mr. Abdel Latif el-Wakil, and by inspectors Messrs Sayed Ahmed Abdel and Aseem Sayed Ahmed from the Western Delta Archaeological Office, to all of whom I would like to express words of thanks and gratitude for their help throughout the season.

² For previous work, see: *PAM VII, Reports 1995* (1996), pp.42-52; *PAM VIII, Reports 1996* (1997), pp. 82-88; *PAM IX, Reports 1997* (1998), pp. 72-76. It should be noted that in previous reporting houses H10 and H10a had been designated as H7, and H19 as H7a.

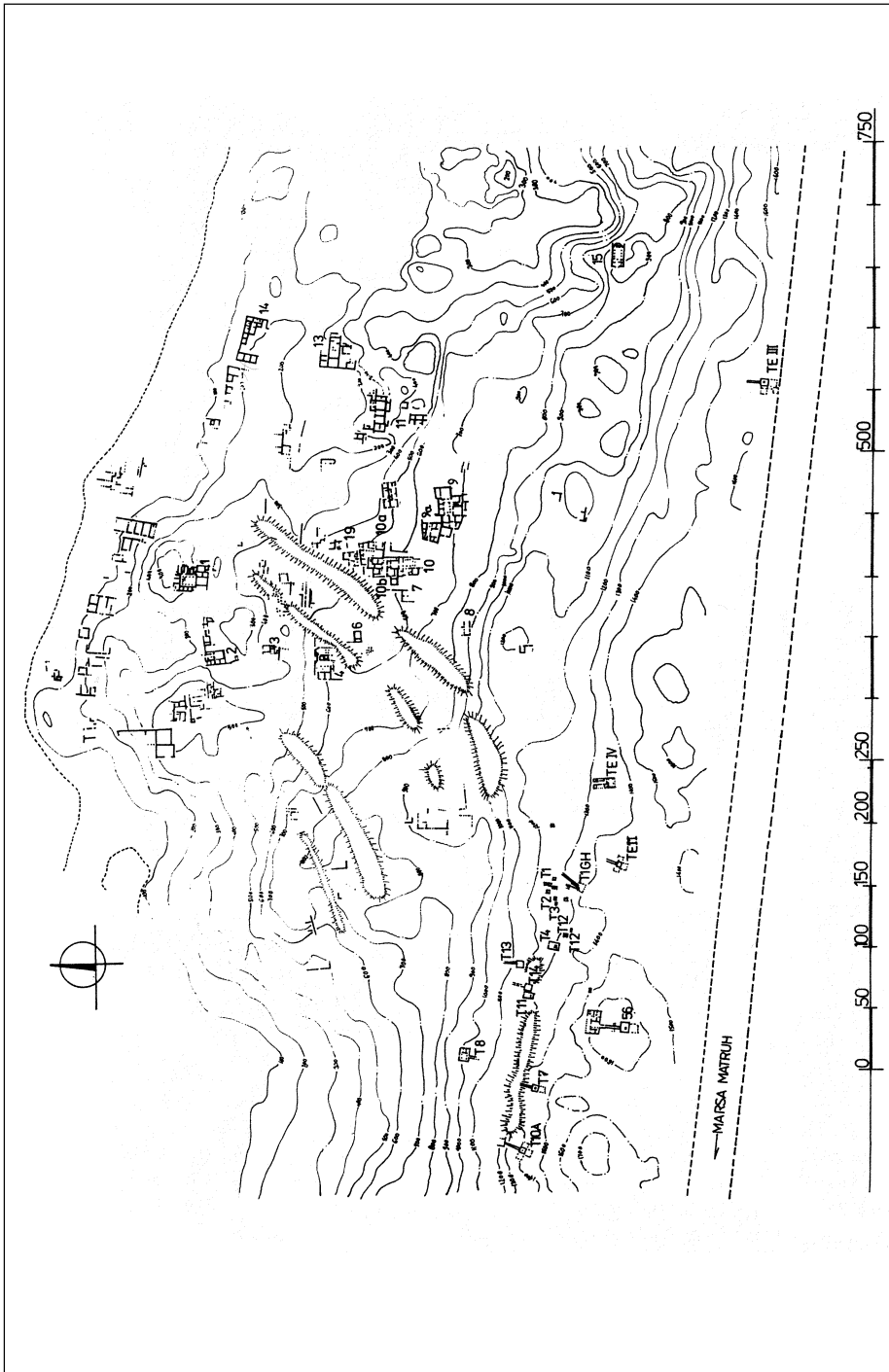


Fig. 1. General plan of the ancient town and necropolis
(Drawing Polish Archaeological Mission: J. Dobrowolski et al.)

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The current state of research, both in the ancient town and in its necropolis,³ indicates that the city, the name of which remains to be satisfactorily identified,⁴ was in existence from the 2nd century BC until the 6th century AD.⁵ In their initial phase, the houses now under conservation appear to go back to the late 1st and 2nd century AD and later underwent repeated rebuilding. The standing structures, which are the object of the mission's activities, have been dated provisionally to the late 2nd century AD; they remained in use in practically unchanged form until at least the 4th century AD. Their destruction should be linked with a cataclysm of some kind, possibly an earthquake to judge by the

fallen walls. Clearing work during the season has shown that the original occupational levels of houses H10a and H9b lay some 0.80 m below the levels of the houses from the 4th century.

Ever since its discovery, the ancient town has been undergoing gradual devastation caused by natural erosion processes. The deterioration has progressed dramatically over the past winter with exceptionally heavy rains causing landslides and filling the excavated ruins with a thick layer of mud and sand. This necessitated extensive clearing work before the actual conservation could be undertaken. An effort was made to prevent a similar situation taking place in the future.

CONSERVATION WORK

HOUSE H9 [Fig. 2]

As in previous years, particular stages of the conservation process: recording and designing documentation, preparatory steps and actual conservation work, progressed simultaneously.

The first step was to assess the damages caused by the heavy winter rains. Water and sand had taken a toll on the floors and wall structures in the southern end of the house. As part of prevention steps made to protect the site from similar damage in the future, the

mounds of excavated sand and debris from the trenches were removed to a greater distance and all possible openings in the outer perimeter of the complex were blocked; the surrounding area was landscaped to provide for adequate rainfall drainage.

Sections of walls intended for preservation treatment this season were cleaned very thoroughly. The tops of walls were dismantled until a sound core was reached; the joints were cleaned mechanically, as was the face of the stone blocks. The surviving walls did not ex-

³ The site has been under exploration since 1987. For current work by a Polish archaeological expedition in the Western Necropolis see report by W.A. Daszewski in this volume.

⁴ For a discussion of the possible identification of the ancient town as Leucasps or Antiphras see, i.a., W.A. Daszewski, *Témoignage de l'urbanisation de la Côte Méditerranéenne de l'époque hellénistique et romaine à la lumière des fouilles de Marina el-Alamein*, *Bulletin de la Société Française d'Égyptologie* 132 (1995), pp. 14-16; A. Twardecki, Marina - nowe polskie stanowisko archeologiczne w Egipcie. Próba lokalizacji na mapie Egiptu grecko-rzymskiego, *Studia i materiały archeologiczne*, vol. 9(1992), pp. 107-118.

⁵ See W.A. Daszewski, Marina el Alamein. The site of an unknown Graeco-Roman settlement on the Mediterranean coast of Egypt, [in:] *Marina el-Alamein. Archaeological background and conservation problems*, vol. I (Warsaw 1991), p. 12.

ceed 2.00 m in height anywhere (the mud-brick phase from a later period in the occupation of the house has eroded completely, as reported earlier, and cannot be restored) and our clearing of the eroded mass additionally lowered them by two or even three courses, giving in effect sections that were barely 0.45 m high. In order to protect against further deterioration and for the purposes of exhibition, the walls had to be restored to at least 1.00 m in height. The other, better preserved walls were shaped according to the spatial arrangement of the house. The entire perimeter of house H9 has thus been protected.

In the absence of a stonecutter, however, the expedition was unable to replace the missing door jambs and column drums. As the walls could not exceed the surviving original door jambs in height, the current exposition effect still leaves much to be desired. The tops of the walls will also begin to be formed in the next season, once the required visual effect has been achieved.

A study of the ancient techniques used in the building of the house has shown that the technology applied by ancient builders was quite simple. The facing blocks of stone were laid practically without bonding mortar and the core of the wall was filled with

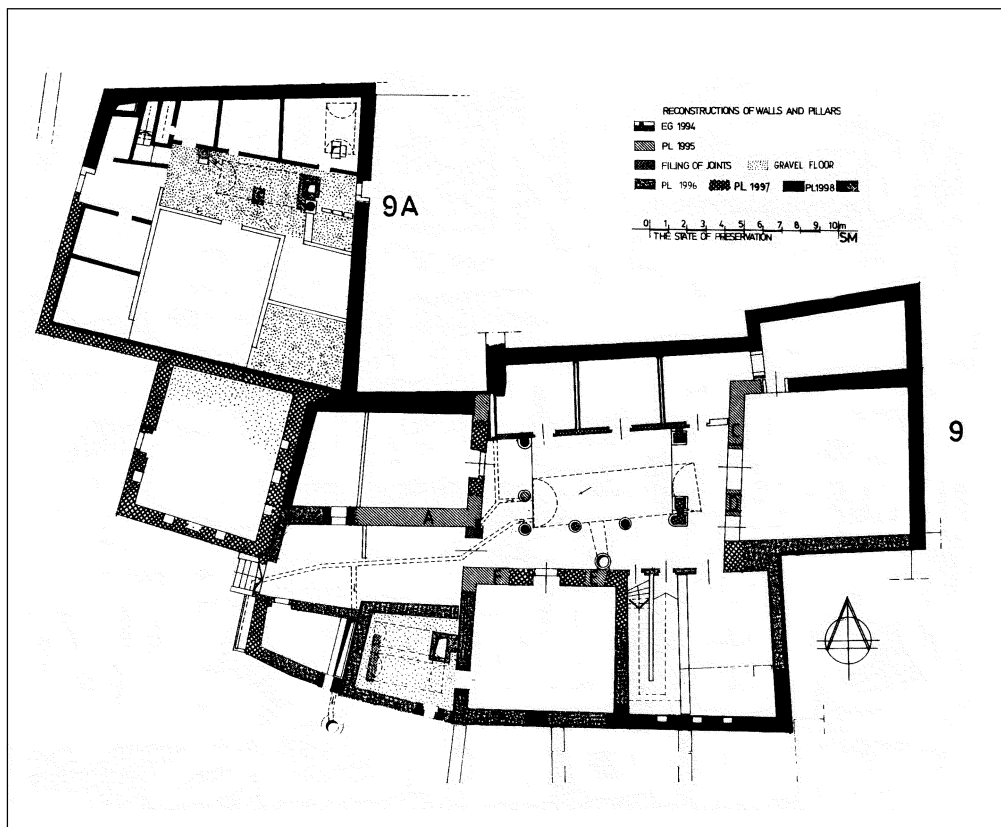


Fig. 2. General plan of Houses H9 and H9A, showing the scope of reconstruction work in particular seasons (Drawing Polish-Egyptian Preservation Mission: S. Medeksza)

stone rubble bonded with a rather thin clay mortar which permeated all the recesses in the core and between the facing stones. After the building was erected to its full height and roofed over, the inside walls were plastered with several layers of a lime plaster. The first one contained a thick fraction of pebbles and stone detritus, and seeped deep into the joints, additionally reinforcing the structure. The superimposed layers, from one to three, contained ever finer sand. The topmost layer, frequently with gypsum added, was smoothed under painting. Only walls of slabs or a single course of blocks were wholly bonded with a lime mortar.

In the course of the conservation process, the idea was not to reconstruct the ancient technology, but to protect the ruins from further deterioration. For technical and aesthetic reasons, care was taken not to restore and reconstruct the destroyed plastering. Protecting the biggest surviving pieces of plaster on the walls will be the object of the coming season.

Some difficulty was created by the insufficient quantity of quality building materials, especially stone and bonding mortar. As lime was limited, a gray Portland cement was added to the lime mortar making it rather dark in color and hence unsuitable for anything but the core of the walls. The mortar for filling the joints was made of lime, sand and some white cement (2+6+1). Care was taken to make recessed joints – some 0.5 cm deep. This gives the proper lighting effect and allows the new parts of the wall to be distinguished from the old, especially as the original structure of the face of the wall was kept untouched in as big fragments as possible. In effect, the degree of the corrosion of both the stone and ancient mortar has become evident.

The final step to protect the walls from aggressive natural elements, like wind, rain

and sun, was to consolidate the top course of blocks of stone. The blocks were laid still more tightly and the tops were inclined toward the outside. What parts could not be completed this season were protected with a topping of lime mortar with some white cement added, the crown being profiled to drain water from the top of the walls.

The mortar used for the tops of the walls had to have more white cement to survive the daily changes of temperature characteristic of northern Egypt, but it is important not to overdo as too much cement in the mortar can lead to cracking and crushing of poor stone. Observation of the effects next year will permit the appropriate proportions of the mortar to be determined. This is part of the program to test technologies and binding materials before they are used on a wide scale in the conservation.

HOUSE H9a [*Figs 2, 3*]

As in the neighboring house, here, too, the damage from winter rains had to be evaluated. Even though the destruction was not as excessive as in House H9, the same measures were undertaken to protect the structure in the future.

Work on cleaning and protecting the walls of the complex, in the same order as described above, were advanced in 80%. Some of the protection from the previous season ill survived the winter and was in need of being replaced. This was done on 60 m of the walls and will be continued in 1999.

The partition walls were protected and restored, especially in the northern part of the building, where the final display effect was reached. In the western part of the house, an entrance to one of the rooms was reconstructed, as well as the partition wall between rooms.

Also in this structure the surviving walls were 0.80 m high at the most and were further lowered once the eroded tops were removed. For the purposes of protection and display, these walls had to be built up to at least 1.00 m. Again, the absence of a stonecutter prevented the door jambs to be reconstructed and this did not permit the adjoining sections of walls to be properly restored. Hence, the final visual effect of the reconstruction is not yet entirely satisfactory. This work will hopefully be done in the coming season.

The same jointing and protection against further deterioration was carried out as described in the case of house H9.

Originally, there had been only one column in the eastern portico of the courtyard in house H9A. The second column attached to the northwestern wall had a channel cut inside the drums and served as a rainwater drain pipe leading to a cistern situated under the floor of the courtyard. The base of this column is in place, but only part of a drum and the capital remain of the rest of it. The column was not

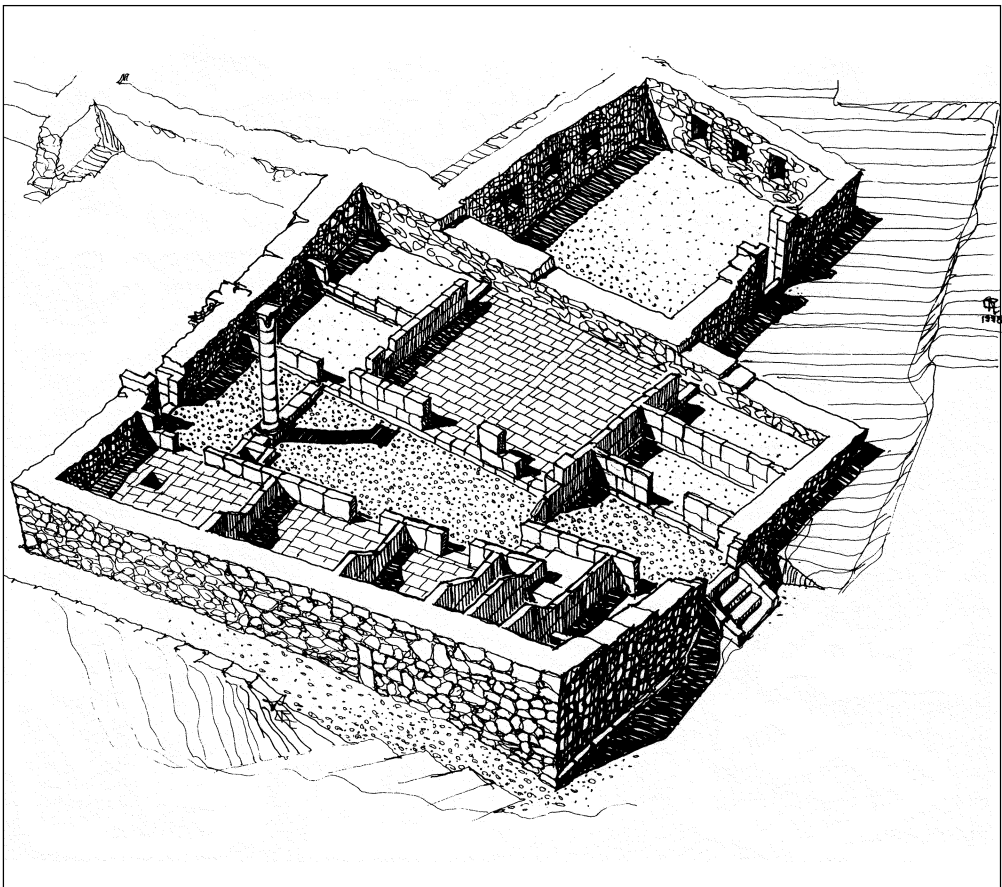


Fig. 3. General view of House 9A after revalorization
(Drawing Polish-Egyptian Preservation Mission; R. Czerner)

reconstructed on purpose in order to display this interesting technical design. The column base preserved in the middle of the width of the courtyard determined the width of the east portico. Enough drums were preserved to restore the column to its full height of 2.87 m. While the capital was not in a good state, it was restored under the provision that further restoration work will be done on it in the coming season.

HOUSE COMPLEX H10 (previously H7) Work on this complex had begun in the 1997 season.⁶ The objectives of the current campaign was to finish the clearing of rooms 2 and 3a, as well as of the courtyard with porticoes; the recording of the architectural decoration and anastylosis of all the columns in the courtyard portico.

Clearing work in rooms 2 and 3a, started already in 1997 by the inspectors from the SCA, led to some important discoveries. The remains of a niche were found lying in the top layers of room 2. The niche was framed by plastered engaged columns topped with a cornice and triangular tympanum with a shell in the conch [Fig. 4]. Below remnants of painting were discovered indicating that the niche served the purposes of a private cult.

The surviving painting depicts three busts of figures with nimbus around their heads, ascending along an arch of clouds up and toward the center. All the figures have their eyes turned to the right, presumably toward a figure now lost, which had once occupied the center of the niche and which can be identified provisionally.⁷ This figure, whose reconstructed height might have been some

1.60 m, could have depicted a mortal, perhaps the owner of the house, or else a mythological figure. Above this figure, the rounded arch carried busts of most probably six solar and lunar deities, male and female [Fig. 5]. Starting from left, these are Helios, Harpocrates as the young sun and Sarapis. On the other side, Helios could have had Selene as his counterpart, while Isis might have been the opposite of Sarapis. The third figure remains to be identified. Based on preliminary studies of the style, it can be assumed that the niche painting probably dates from the second half of the 2nd or the 3rd century AD.

The niche itself appears to have had two architectural phases, although this will have to be verified in future comparative studies. The decoration is all executed in plaster. The first phase is characterized by convex fluting on the engaged columns. Surviving from the second phase are fragments of a base of the Attic type and fluting on the engaged columns, which are typical of the classic orders. On the basis of tiny pieces of the capitals, it seems obvious that at least in the first phase the capitals represent a simplified form known as Nabatean, which was common in Marina. The painting has been protected provisionally and prepared for conservation in the 1999 season. The niche has been documented in detail and reconstructed on paper. Elements were glued together wherever possible. A partial anastylosis and reconstruction of the niche are planned for 1999, but the painting will not be remounted in its original position; following conservation, the painted decoration will be prepared for museum display.

⁶ For a discussion of the results of the recording work and a preliminary architectural analysis of the complex of houses H10 (H10, H10a, H10b) and the incompletely excavated H19, see *PAM IX, Reports 1997* (1998), pp. 73-76.

⁷ I am deeply indebted to Prof. Zsolt Kiss for devoting his valuable time to discuss the matter of the identification with me and for suggesting a possible interpretation of the niche painting, as well as the representation in room 5S.

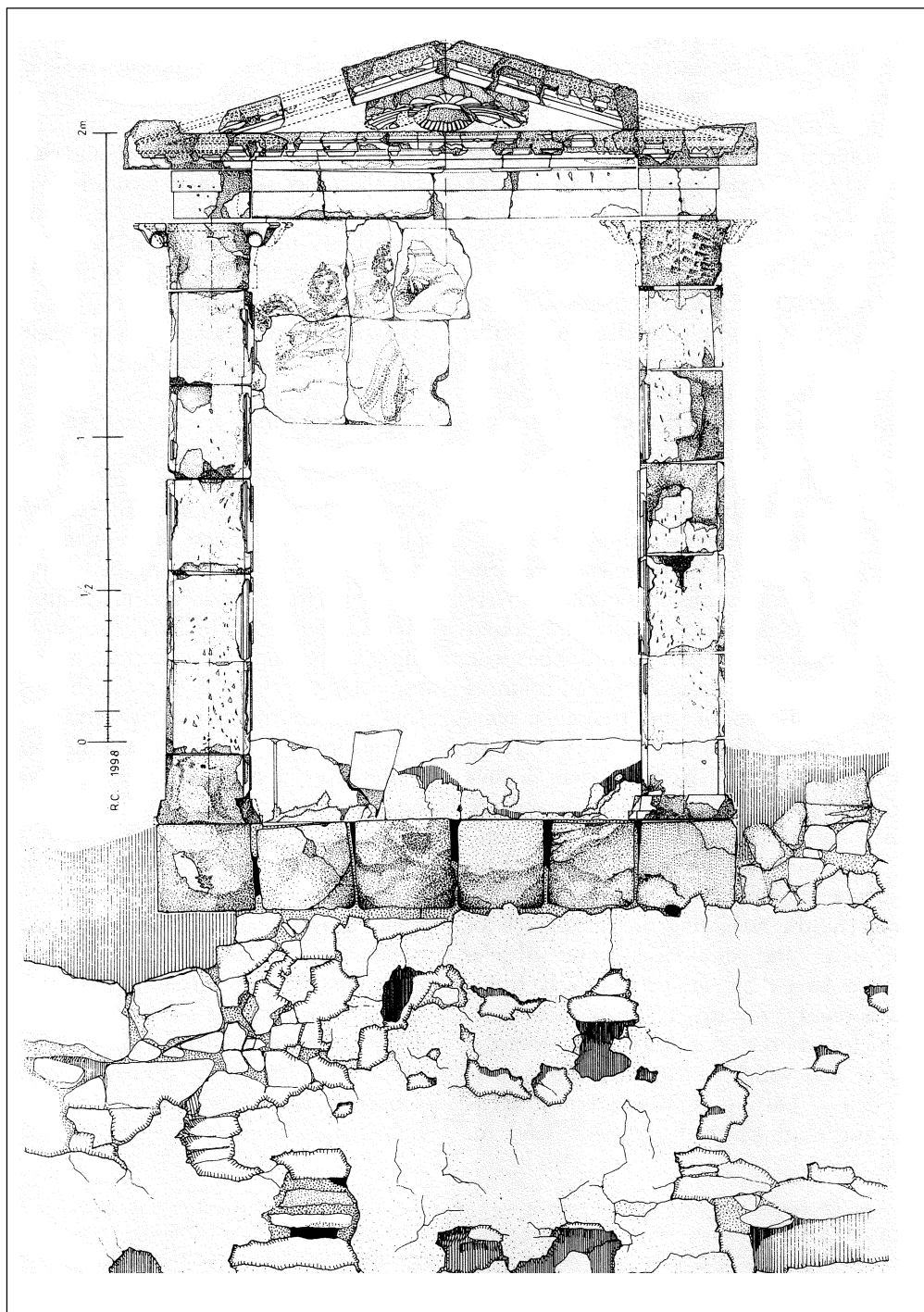


Fig. 4. Reconstruction of a niche from room 3a of House 10
(Drawing Polish-Egyptian Preservation Mission: R. Czerner)

The clearing of room 3a was interrupted when it became obvious that both time and resources are lacking to protect the fragments of wall plaster with painted geometric decoration found in quite satisfactory condition. It was decided to leave these remains in the natural conditions in which they have survived over the centuries until they can be subjected to a comprehensive conservation treatment in the coming season. Otherwise, drying processes and salt efflorescence could cause considerable harm to the excavated fragments of plaster.



Fig. 5. *Surviving painted decoration of the niche in House 10*
(Photo S. Medeksza)

Work in room 2 clarified the course of the eastern outer wall of the house, uncovering in the process a small room (5S) located immediately next to the main entrance to house H10. The debris yielded a quite well preserved wall painting [Fig. 6], presumably representing a Roman deity, perhaps Heron,⁸ also dated provisionally to the second half of the 2nd or the 3rd century AD. It is difficult to decide at this point whether this small room served as a chapel of sorts or not. The upper part of the figure is in a better condition revealing the head in a blue nimbus and the shoulders. A sword guard or lance head can be seen behind the right shoulder, and on the left a cornucopia. Above the head there is what appears to be a garland.⁹ Visible at the bottom are remains of a partly preserved pedestal or, more likely, an altar. The frame which can be detected as a wide band running around the picture appears to be of importance. We could be dealing with an imitation on plaster of "icon" painting, usually executed on wood. This form of painting was encountered both in religious structures and private houses. Despite the damages, it can be said that the painting draws from classic circles without any evident Egyptian features. Strong Hellenistic influence helps to date the painting, as said above, to the second half of the 2nd century AD.

⁸ Prof. Zsolt Kiss is of the opinion that it might be Sarapis represented here. The halo, which is characteristic of solar deities, and the cornucopia are attributes frequently occurring in the Alexandrian area in connection with Sarapis. Such an interpretation is suggested by a faintly visible but identifiable *modius* on the head of the figure. It is an attribute of Sarapis, a measure of corn in the form of a basket. Also, Sarapis with a cornucopia is a known motif on Alexandrian coins. The sword or lance weakens this attribution as the god is not known to have ever been depicted with such an attribute. Hence, the second interpretation linking the image with Heron, a deity from Fayum. Contacts between Marina and Fayum in Antiquity are confirmed by a Fayum coffin portrait discovered by W.A. Daszewski on one of the mummies in chamber LW of the tomb T (=S) 6 in the Western Necropolis, see W.A. Daszewski, *PAM III, Reports 1991* (1992), pp. 26-34, fig. 3.

⁹ Prof. Wiktor A. Daszewski has kindly suggested that the garland above the head of the figure might indicate that the painting originally depicted more than one standing figure – at least two.

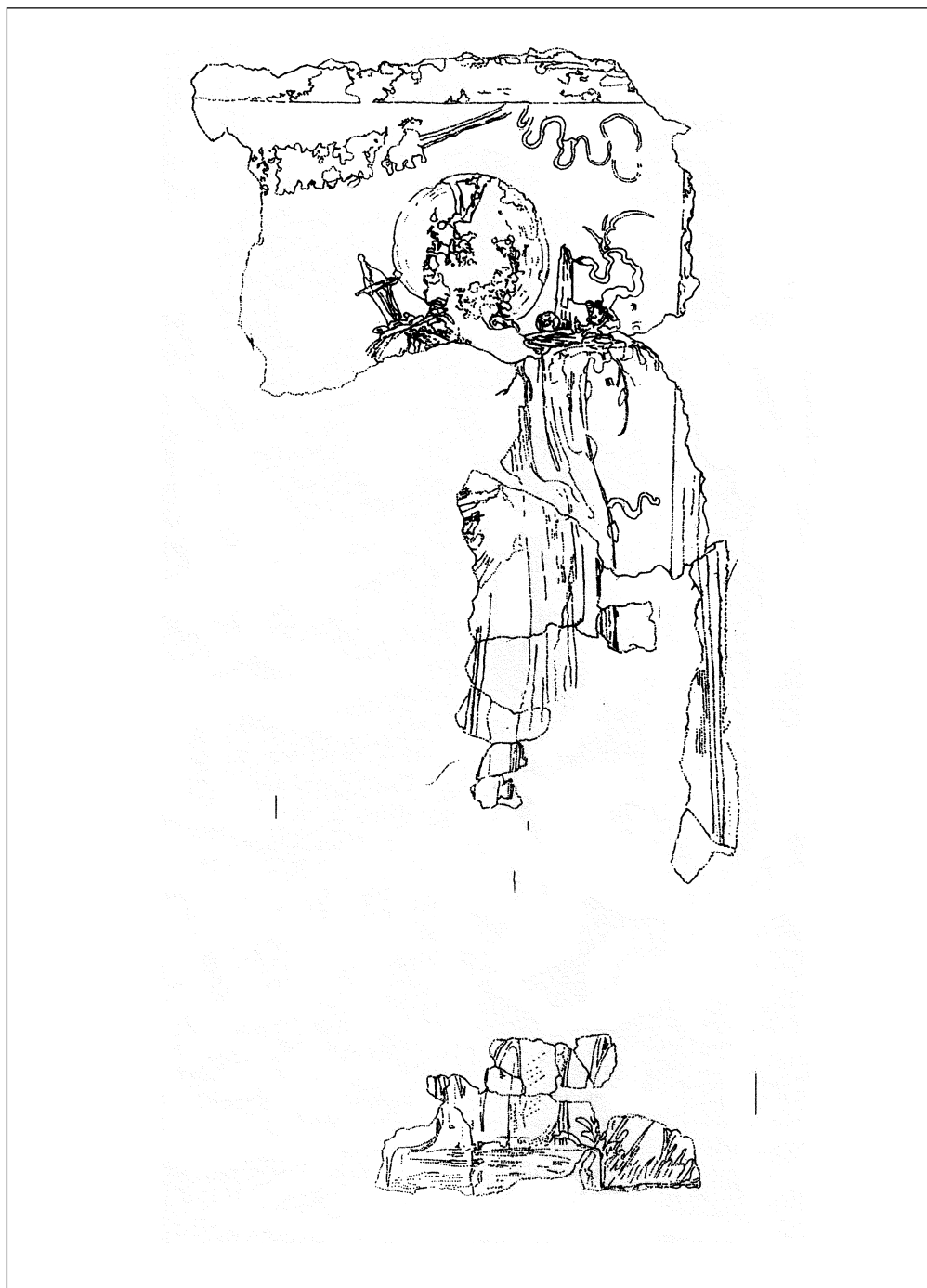


Fig. 6. *Painting from room 5S of House 10*
(Drawing Polish-Egyptian Preservation Mission: A.B. Biernacki)

No further parts of the painting were discovered in this room, but the clearing brought to light evidence of the doorway, both on the floor, as well as in openings for mounting the horizontal door frame. Minor traces at the southern end of the room might be evidence for a table or some kind of elevated construction.

The painting was desalinated and provisionally protected. Matching fragments were glued together. After conservation in the coming season, the painting will be ready to be displayed in a museum exposition.

The area of the courtyard was strewn with pieces of the cornice, column drums and stone blocks from the top of the walls, covered by a thick layer of drifted sand. All this had to be cleared again after the ef-

fects of the winter in order to prepare the courtyard for an anastylosis of the porticoes [Fig. 7].

The architectural elements were recorded in order to reconstruct the official part of House H10 which consisted of three rooms and a courtyard with columns and engaged columns decorating the southern facade of the room with a hearth in the vestibule. It turned out to be possible to restore three columns in full and two others in part; the missing drums of the engaged columns will be reconstructed in 1999. House H10 had two porticoes, one on the east and the other on the west. There were two columns in the western portico with an engaged column at the northern end. The eastern one, in the phase that was cleared, had three columns and an engaged column at the

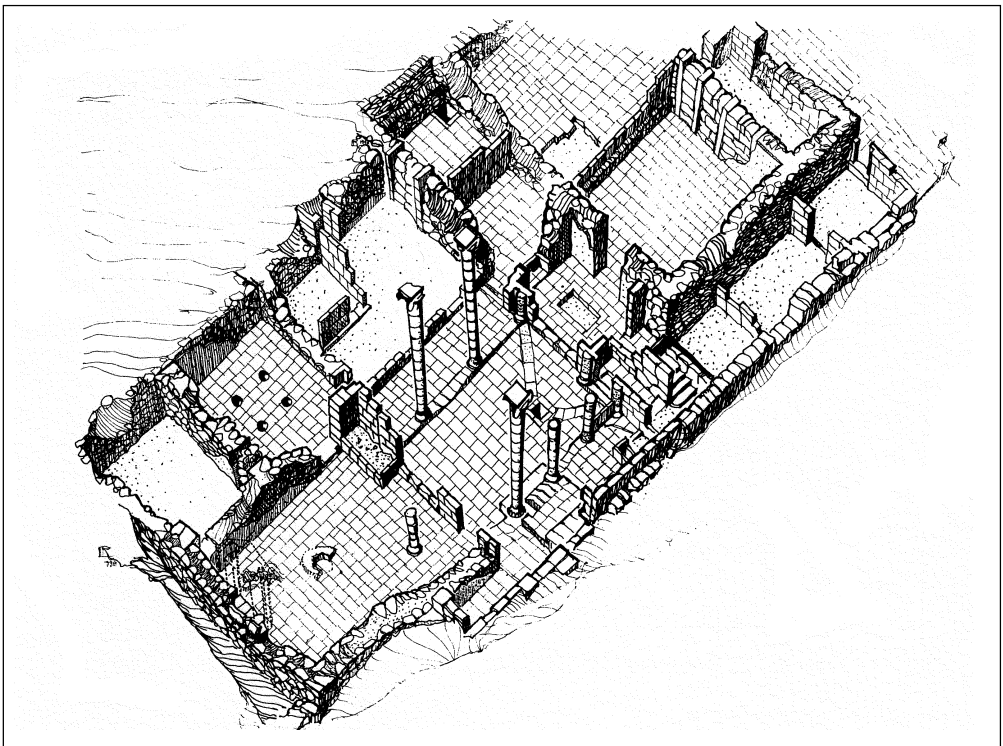


Fig. 7. General view of House H10 after revalorization
(Drawing Polish-Egyptian Preservation Mission: R. Czerner)

northern end; it was rebuilt, as evidenced by an upturned Corinthian-Nabatean capital used as a base under the southern column. Also, the arrangement of the main entrance on the east is quite clearly not original. In all probability, at the time that the surface of the longitudinal street running along the eastern edge of House H10 was raised and leveled, the arrangement of the entrance was modified. Originally, as in all the houses in the town, the inside was reached by three steps leading up to a small vestibule preceding the portico courtyard. After the leveling, it was necessary to descend three steps into the house to reach the level of the courtyard. At this point of the renovation, the columns of the eastern portico were set up at different intervals than on the western side: two columns flanking the entrance and the third set up at a safe distance to carry the architrave. Of the five columns, three could be recon-

structed in full (two on the west - Fig. 8, and one on the east).

While all the architectural elements had been plastered in antiquity, the reconstruction avoided plastering the columns, using instead a lime mortar wash on the surface, which filled only the voids. The remaining two columns of the eastern portico and all the engaged columns were raised to a height from 116 to 158 cm. Further work on recomposing the houses of complex 10 will be continued in the coming season.

Once again the season showed how absolutely essential it is to follow up excavations with immediate protection of the architectural remnants in order to protect the stone and plaster from destructive processes. A closed storage space where chemical conservation of the stone could be carried out would protect the stone from natural erosion until the time comes to reinstall the pieces in the restored buildings.

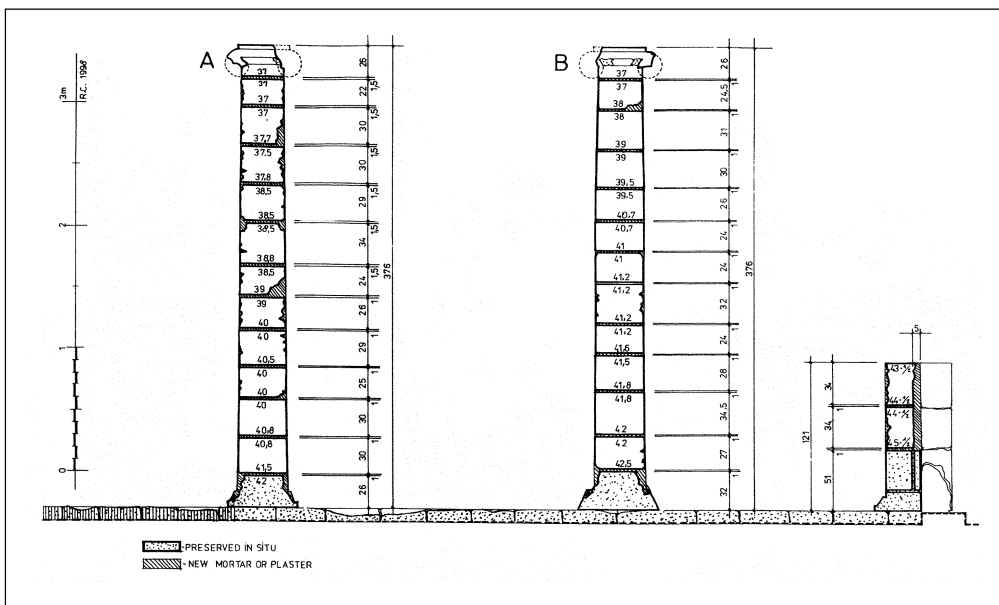


Fig. 8. Anastylosis drawing of columns in the western portico of House H10 (Drawing Polish-Egyptian Preservation Mission: R. Czerter)