

# Conservation of a commemorative monument to the Emperor Commodus in House H21c in Marina el-Alamein



**Abstract:** Current maintenance conservation work by the Polish–Egyptian Conservation Mission in Marina el-Alamein occasions a revisiting of the history of the archaeological discovery, interpretation and original conservation and anastylosis of a commemorative monument dedicated to the Roman Emperor Marcus Antoninus Commodus. The monument, a rectangular masonry structure with colonnaded front, was built inside a presumed dining or reception hall of building H21c near the harbor of the ancient Graeco-Roman town. The original project took place between 2000 and 2007 (Czerner and Medeksza 2010). Maintenance conservation after a decade created the opportunity for a more in-depth analysis of the dimensions of the monument and the individual architectural elements of which it was composed.

**Keywords:** Marina el-Alamein, Roman, conservation, anastylosis, commemorative monument, architectural orders, pseudo-Corinthian capitals, bases, Marcus Antoninus Commodus

One of the most important architectural monuments from the site of Marina el-Alamein, an ancient Graeco-Roman harbor town on the Mediterranean coast of Egypt, is a commemorative monument dedicated to the Roman emperor Marcus Antoninus Commodus. It is a masonry-built structure located in what was most probably the main reception or dining hall (Room 2) of House H21c in the northern part of the ancient town, close to the harbor area [Fig. 1].

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## DISCOVERY AND INTERPRETATION

The structure, which was first cleared in 2001, was not immediately recognized for what it was [Fig. 2]. Two square compart-

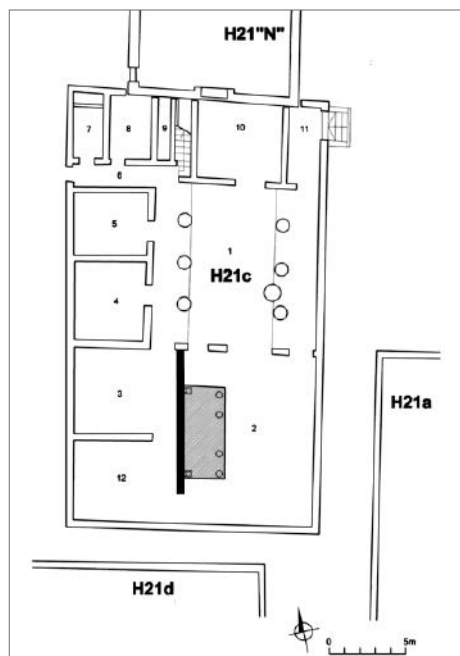


Fig. 1. Position of the Commodus monument inside House H21c (Polish–Egyptian Conservation Mission | drawing M. Krawczyk-Szczerbińska, S. Medeksza)

ments, 1.80 m to the side, were observed against the west wall of a large room that was indubitably the most important official hall in the house. It opened off a long courtyard with porticoes on either side. The compartments were constructed of two courses of vertical stone slabs (0.54–0.60 m long, 0.30 m wide, and 0.20–0.21 m thick), rising to a total height of 0.68 m. These walls were set directly on the paved stone floor, attached to the west wall of the room that rose behind them serving as a backdrop. The compartments appeared to serve no particular function.

However, the rubble inside the house, which started to be cleared in 2000, yielded numerous architectural elements of interest: five drums of small column shafts 29–31.5 cm in diameter and 53 cm in height, and one smaller drum with a diameter of 29 cm and a height of 45 cm (Czerner and Medeksza 2010: 102). A column drum from Room 12, 53 cm high, 29 cm in diameter, retained the plastered and polychromed decoration in two layers (preservation by painting conservation specialist Małgorzata



Fig. 2. Plinth of the monument after cleaning (left) and after finishing the walls with a capping at the edge (top level of the mensa +0.98 m) (Polish–Egyptian Conservation Mission | photos S. Medeksza)

Ujma in 2001–2002). The outer layer bearing a floral ornament in two colors (red tendrils with green leaves, Fig. 5) is 1 cm thick and made of more finely sifted aggregate, yielding a smoother surface as a ground for the wall painting.

The architectural decoration included a pseudo-Corinthian capital (so-called Marina type) [Fig. 4] and a square pillar head also in the pseudo-Corinthian type. Fragments of red marble were recomposed into a two irregular pieces of a slab (34 x 34.5 cm and 29.5 x 60.5 cm; see Medeksza 2001: 73, 74;

Czerner and Medeksza 2010: 102) and reconstructed as a large rectangular marble *mensa*, 4.29 (4.34) m by 2.045 m. The slab was 4.3–4.8 cm thick and was furnished with a fragmentary inscription running around the edge, implying its horizontal position [Fig. 3 top]. It may have been set like a plinth covering the double-compartment structure. The inscription, consisting of letters 1.5–2.2 cm high, was cut in the middle of the height of the side of the slab. Read by Adam Łajtar (University of Warsaw), it contributed to the interpretation of the monument and its dating: "... Year 23



Fig. 3. Fragments of decoration: top, integrated *mensa* made of red marble with inscription around the edge; bottom, red marble decorative element (Polish–Egyptian Conservation Mission | photos A.B. Biernacki, W. Grzegorek; drawing and digitizing W. Grzegorek; reading A. Łajtar [2001; 2003])



Fig. 4. Pseudo-Corinthian column capital classes as the so-called Marina type (Polish–Egyptian Conservation Mission | photos and drawing W. Grzegorek)



Fig. 5. Drum of a column with a plant ornament painted on the shaft (Polish–Egyptian Conservation Mission | photo W. Grzegorek, drawing W. Grzegorek and M. Ujma, digitizing M. Grzegorek)



of Emperor Ceasar Marcus Antoninus Commodus [- (has laid or have laid) -] and the chequered – work of *sibades* [-] for the good”. The dedication was made in year 23 of the reign of Commodus, that is, the year between 29 August 182 and 28 August 183 (Łajtar 2001: 59–65; revised in 2003: 178).

A small (12.5 x 12.5 x 16.3 cm) element, also made of red marble with light veins [Fig. 3 bottom], and a number of small, shapeless, flat chips from this marble (1–3 cm by 1–3 cm) came from the backfill of Room 2, but there is no certainty that they came from the monument.

## ANASTYLOSIS AND PARTIAL RECONSTRUCTION OF THE MONUMENT (2002–2007)

The anastylosis project was developed and implemented between 2002 and 2007 by architects Stanisław Medeksza and Rafał Czerner from the Polish-Egyptian Conservation Mission, based on a detailed analysis of architectural elements and comparative studies (Czerner and Medeksza 2008: 31–33; 2010: 104–112) [Table 1].

The house, in which the monument is located, forms part of an insula with building H21'N' to the north of it. The latter is composed of a single large hall with a decorated niche of considerable size in the south wall. It was probably a public building; if so, then there could have been some connection with the monument in the building that adjoined it.

Table 1. Stages of discovery, preservation and anastylosis/conservation prior to the current maintenance work

Season	Stages of work
2000	Base plinth cleaned and inventoried; numerous construction elements found in the backfill of the house (Medeksza 2001: 72–74)
2001	Column shaft drum with plastered polychrome plant decoration, from Room 12; conserved (Medeksza 2002: 95–97, 100–101)
2002	Reconstruction of the plinth (Medeksza et al. 2003: 89–90, 94)
2003	Anastylosis project, preparing templates for the base and column capitals, casting the missing three drums for the anastylosis of two columns of full height, casting three columns and pillar bases (Medeksza et al. 2004: 95)
2004	Anastylosis of two columns to full height, without capitals (Medeksza et al. 2005: 109, 111–112)
2005	Installation of two capitals on shafts of full height, finalising the anastylosis of two columns (Medeksza et al. 2007: 106–107, 109–110)
2006	Reconstruction of one southern pillar plus head, elements of the shaft fastened to west wall. Third base mounted with one original column drum and new bases cast for the fourth corner column as well as a second pillar by the west wall (Medeksza et al. 2008: 75–76)
2007	Layer of blocks from the architrave set on the wall with a cantilever cornice of seven blocks on top; a few more blocks laid on the west wall completing the project (Medeksza et al. 2010: 88)

The house with the monument was entered from a street passing along the eastern elevation of the building. Steps from outside led into a portico courtyard and from there, through a tripartite entrance, to a large hall in the southeastern part of the house. The room was 6.40 m wide and 8.17–8.21 m long. Upon entering, one had the monument on one's right, almost on the east–west axis of the room, by the west wall. The structure was 4.23 m long, at about the same distance from either end (its cent-

er aligned almost exactly with the E–W axis of the room), projecting 2.02 m from the wall face. When first cleared, it most resembled a large banquet couch (*kline*), rectangular in plan, the length-to-width ratio being 2:1. The divergence of the plan by barely a few centimeters—the shorter, south wall ran slightly diagonally to the north one, distorting the rectangle—is considered as either carelessness or misalignment. A wall inside the structure divides it into two equal compartments, both ap-

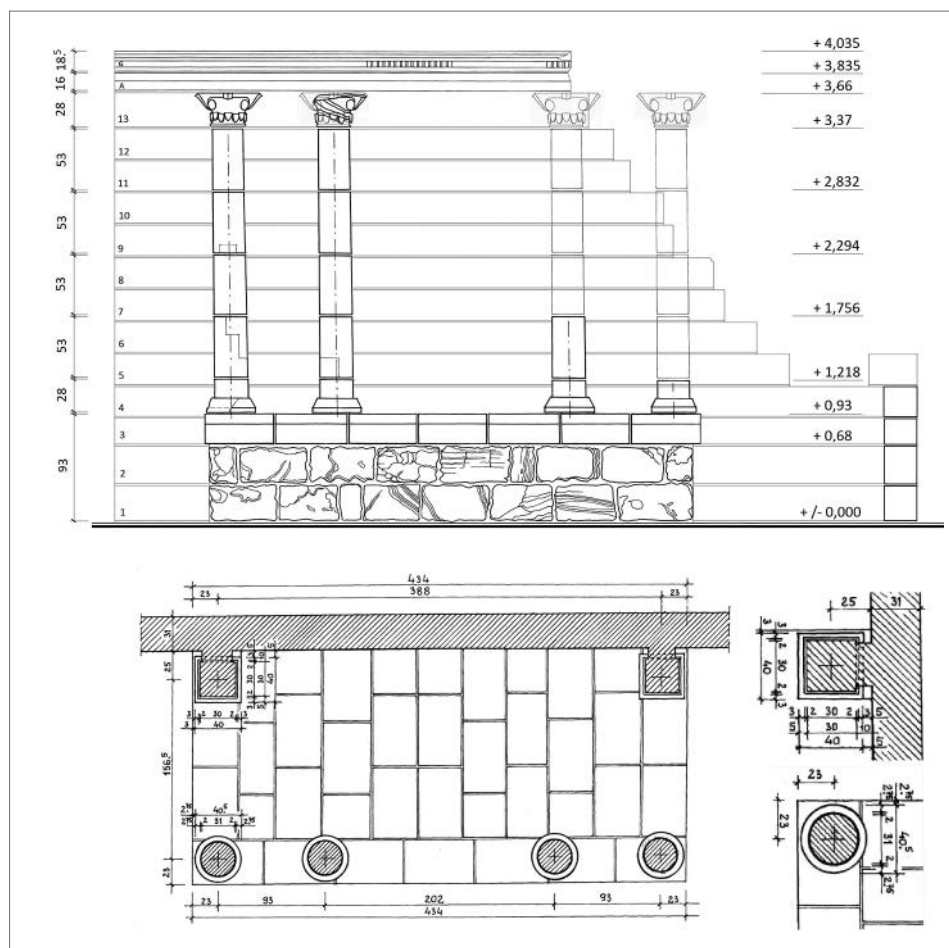


Fig. 6. Inventory drawings of the commemorative monument: front elevation elevation, plan and sections (state May 2018) (Polish–Egyptian Conservation Mission | inventory and drawing W. Grzegorek)

parently filled solid with limestone rubble and sand (Czerner and Medeksza 2010: 98–99) [see *Fig. 2*]. Limestone slabs 21 cm wide were used for the walls and were capped with flat blocks typical of Marina (60 x 40 x 30 cm) forming a stone ledge around the perimeter. This base was subsequently decorated with the red marble slabs, arranged in a checkerboard pattern, the sides of individual slabs running presumably parallel and perpendicular to the diagonal of the *mensa* top.

The project started in 2002 with a reconstruction of the marble plinth. The blocks of the side walls of the base were cleaned and completed, the joints filled and the compartments filled with rubble. The capping was made of limestone slabs without recreating the red marble slab, which was too fragmentary for the purpose (the inscription is in SCA storage). The top of the structure now measured 4.29–4.34 m by 2.045 m, and the height to the top of the slabs was 0.92–0.93 m.

A comparative analysis of the architectural elements from the rubble of

the house lent itself to the recreation of a two-row column portico on top of the base and with the west wall of the room as a backdrop. Originally, it consisted of four columns in front and two pillars or pilasters on the wall, standing 10 cm away from the wall, but connected to it by masonry. The distance between the axis of the column bases and the edges of the base is 0.23 m. The axis of the pillar/pilaster bases is 0.25 m from the wall. The spacing between the row of columns positioned at the edge of the plinth and the row of pillars by the wall is 1.565 m between the axes [Fig. 6].

The anastylosis took advantage of surviving architectural elements of the portico: two columns and one pillar of full height, as well as the outline of one drum on the base of the next column and the bases of the fourth, corner column and the second pillar by the wall (Czerner and Medeksza 2010: 109–112). The columns and pillars were mortared to the plinth slabs. The drums and capitals were joined with lime and cement mortar, using Egyptian-made white cement. The total height of the plinth, as well as of the columns and pillars, corresponds to the heights of the reconstructed columns of the portico belonging to the courtyard of House H21c, demonstrating the correctness of this hypothesis. For the sake of comparison, the lower diameter of the columns of the courtyard portico is 0.46 m, while that of the columns of the monument is only 0.315 m (Czerner and Medeksza 2010: 102; Grzegorek 2019: 285) [see Fig. 6].

The total height of the west wall from the floor to the top of the cornice is reconstructed at 4.035 m. The height of the colonnade (columns and pillars) from the

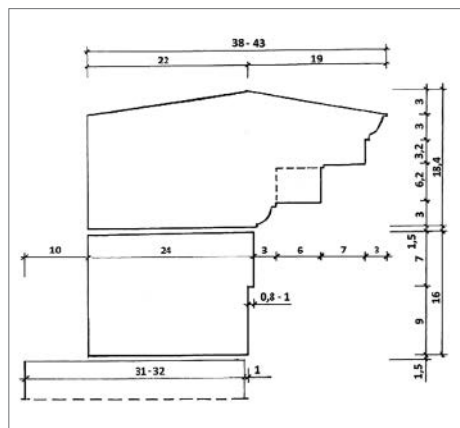


Fig. 7. Cornice with dentils (section drawing, 2018) (Polish-Egyptian Conservation Mission | inventory and drawing W. Grzegorek)

top of the ledge to the top of the capitals is 2.73 m. The height from the top of the base to the top of the architrave is 2.905 m and to the top of the cornice 3.105 m [see Fig. 6]. The overhang of the cornice in relation to the wall facade is 0.19 m.

The west wall was reconstructed to a height of 10 courses above the top of the plinth surface, assembling the new blocks of the architrave higher with the preserved cornice mantle on top (Grzegorek 2019: 286) [Fig. 7].

## CONSERVATION MAINTENANCE WORK

For the past 11 years, since the completion of the conservation and reconstruction work in 2007, the monument, which stands out in the open, has been exposed to the harsh weather conditions of the Mediterranean winters. Winds in the coastal zone blow east–west from November to March,

often carrying large amounts of fine abrasive sand. They are accompanied by aggressive atmospheric precipitation occurring in the coastal area. These processes are the cause of progressing degradation, evidenced by the loss of mortar from the joints and local erosion of limestone blocks in the walls.



Fig. 8A. Commemorative monument before and after completion of work in the 2018 season: details of the wall (Polish–Egyptian Conservation Mission | photos W. Grzegorek)



Regular monitoring of the state of the monument, a standard procedure for the mission, revealed the need for undertaking maintenance conservation according to the principles worked out for the site in the course of the 20-year-old project.

Joints under the capitals and between the column drums were filled for the first time in May 2017 (Zambrzycki and Selero-wicz 2018). In May 2018, further conserva-

tion work was carried out by the author [Figs 8A–B]. Because of an urgent need to fill in the joints and larger stone losses in the wall located between Rooms 2, 12 and 3 of House H21c, the larger stone losses were filled on both sides and pointing work was conducted on the eastern face of the west wall of Room 2; local plastering of the surface of eroded stones was performed. This wall is structurally important



Fig. 8B. Commemorative monument before and after completion of work in the 2018 season: details of the wall, view from the the north and south (Polish–Egyptian Conservation Mission | photos W. Grzegorek)



Fig. 9. Commemorative monument before and after completion of work in 2018 (Polish–Egyptian Conservation Mission | photos W. Grzegorek)

because it closes it from the west even as it provides a background for it. The wall, which is 0.31 m thick, is built of limestone blocks bonded in lime–cement mortar using white Portland cement as described below. The work included:

- cleaning the surface of stones and joints with a hard plastic brush and a wire brush,
- removal of loose fragments of mortar and stone,
- abundant moistening of cleaned joints or gaps between blocks after mortar depletion,
- filling the joints with mortar of dense plastic consistency and cleaning excessive mortar from the face of the stones,
- curing the binding mortar in the joints by sprinkling it frequently with water.

The cornice block [see *Fig. 7*], inadvertently broken, was reintegrated on the floor by stone conservator Piotr Zambrzycki using stainless steel clamps and epoxy resin. After the resin had hardened, the block was settled on the top of the wall, bonded with mortar, completing the northern end section of the pinion cornice crowning the wall.

The filling and pointing conservation work was completed along horizontal lines,

starting from the top of the wall above the monument and gradually moving downward to the level of the upper mensa (+0.92 m) of the monument. Joints in the sections of the wall south of the monument and to the north of it were filled in a similar way. Finally, the floor of the room was cleaned of sand and vegetation.

The lime–cement mortar for the masonry work and pointing was made using Portland White Cement II/B – L 42,5 N produced in May 2018 by Helwan Cement of the Heidelberg Cement Group, slaked lime obtained from hydrated lime, unsalted dug sand and tap water in quantity required for dense-plastic consistency. The aggregate and binders were sieved through a 2.5 mm mesh screen. The sand:lime:cement volume ratio was 6:3:1. Good workability of the mortar, that is, proper consistency for easy and accurate filling of cavities while maintaining homogeneity and tightness of the mortar, was ensured. The old mortar in the joints as well as the surface of the stones around the cavities were both thoroughly soaked before laying fresh mortar so that they would not draw the batched water needed for proper binding from the fresh mix. After laying, the binding mortar was cured by frequent and abundant sprinkling with water, this necessitated by the high air temperature of 25–28°C.

## FINAL REMARKS

The current work was necessitated by the observed degradation of sections of the back wall on either side of the monument. Stone erosion and deterioration and loss of mortar from the joints threatened the collapse of parts of the structure. The case of the monument, requiring additional conservation barely a decade after the original

restoration project had been concluded, demonstrates a not so rare situation in Egypt. Monuments standing out in the open, especially in the corrosive climate of the Mediterranean coast, are in need of continuous monitoring and maintenance conservation in order for the archaeological heritage to be preserved in good condition.



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