Organization of urban space in the northern part of the ancient town at Marina el Alamein: some remarks following the 2021 field season

Abstract: Recent excavations in the northern part of the Marina el-Alamein archaeological site have uncovered architectural features shedding light on the functioning of this part of the town located close to the putative harbor. It now appears to have been a residential district of an affluent elite, exemplified by House H39 incorporating a small bathhouse. In view of these findings, the location in this part of the town of a large house with a commemorative complex dedicated to the Commodus cult, together with an adjoining banquet hall, does not seem to be accidental.

Keywords: Roman architecture, urban space, urban planning, dwelling houses, Marina el-Alamein, Greek-Roman period

Recent field activities of the Egyptian–Polish team in Marina el-Alamein have been focused on the excavation of private houses located in the northwestern part of the ancient town with the objective of reconstructing the urban layout in this quarter [*Figs 1, 2*]. The houses and other architectural remains un-

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covered in the course of the current project have yielded data contributing to a discussion of the functionality of this district and the role it played in the overall urban layout of the ancient Roman harbor city.

NORTHWESTERN INSULA IN THE TOWNSCAPE

The insula under examination is the northwesternmost one of the ancient town, with the ground dropping off sharply just a few dozen meters to the west, in the general direction of the lagoon and the putative harbor. Occupying its eastern part are already cleared architectural structures: House H21, which was cleaned some years ago by Stanisław Medeksza's team, and structure H39 investigated by the present author [see *Fig. 2*]. Enough space remains to the west in the insula for another line of buildings, which evidently must have formed the skyline seen from the harbor, extending most likely eastward. House H21 with the attached banquet hall merits note with regard to the distribution of house architecture in this area (Medeksza 2001: 72–74; 2002: 92–103; Medeksza et al. 2003: 89–96). It was clearly a building with an upper storey as indicated by a staircase

Fig. 1. View of the northwestern district of the ancient town with House H21, part of the ancient townscape seen from the sea, in the foreground; the modern buildings in the background are already outside of the archaeological site (PCMA UW | photo. K. Jakubiak)

Fig. 2. Marina el-Alamein: top, hypsometric plan of the archaeological site with the discussed quarter marked in orange; bottom, reconstruction of the urban layout based on archaeological research, indicating the buildings discussed in this article (PCMA UW | site plan M. Niepokólczycki [2001]; urban reconstruction plan S. Medeksza, R. Czerner)

located in its northern part (Medeksza et al. 2003: 89–96). Apart from the technical infrastructure in the form of a latrine and a possible kitchen situated to the right of the entrance, which was in the northeastern corner, the building had a peristyle courtyard opening onto a triclinium with a built-in commemorative monument dedicated to the Roman emperor Commodus (Czerner and Medeksza 2010). Whether this cult—practised for an extended time—was of a private nature, limited to family members, or public in character, engaging a larger part of the town population, is difficult to say. Back of the triclinium and courtyard were four chambers of different size, with a functionality that cannot be ascertained based on the limited material from the archaeological cleaning that preceded architectural restoration in this building. There is still space for debate whether the attached banquet hall was part of the living quarters and can be associated with the presumed imperial cult in the reception rooms; it could very well have been used only for private ceremonies. The rectangular hall was of monumental size, with three doorways giving access to the interior from the north, and a decorative aedicule on the back wall, opposite the entrance, raised 2 m above the paved floor [*Fig. 3*]. Inside the hall, on both sides, low benches lined the walls.

HOUSE H39

House H39 was located south of a narrow alley separating it from the H21 complex. The rectangular outline traced on the surface suggested yet another dwelling, which however turned out to be a small bathhouse from the 1st century CE (Jakubiak 2016; 2018) [*Fig. 4*]. A narrow corridor led inside the bathing complex, which consisted of four small chambers with mosaic floors decorated with geometric patterns. The eastern part of the bathhouse, with a boiler and fur-

Fig. 3. House H21: aedicule in the south wall of the banquet hall (Photo. K. Jakubiak)

nace placed in a small chamber, served the dual purpose of heating bath water, this in the boiler, and the air which was subsequently circulated through channels hidden in the walls and in the basement cellar (*hypocaustum*) to heat the room intended for hot-water bathing. Also part of the utilities in this house was a latrine, installed in a rectangular room to the north of the complex. It was an integral part of the bathhouse. A network of sewage channels drained waste water to a tank built of stone in the open space outside the bathhouse wall, where a large mastaba was also situated.

Fieldwork in the 2021 season excavated further rooms west of the bathhouse, concealed until then under a spoil heap from the Egyptian salvage excavations in the later 1980s. Two square chambers were cleared. An examination of wall bonding indicated that the walls of these two rooms were built onto the western façade of H 39 [*Fig. 5* top]. It is still premature to judge whether these two rooms were an integral part of the bath complex or functioned independently, but there is every reason to think that they were used somehow by the bathers. Leaving aside questions of functional interpretation, the chambers had walls built of regular stone slabs, sometimes with a core of less regular stones between the two faces. The inside surfaces were plastered and decorated with painted motifs. However, for the most part, the decorated lime plaster

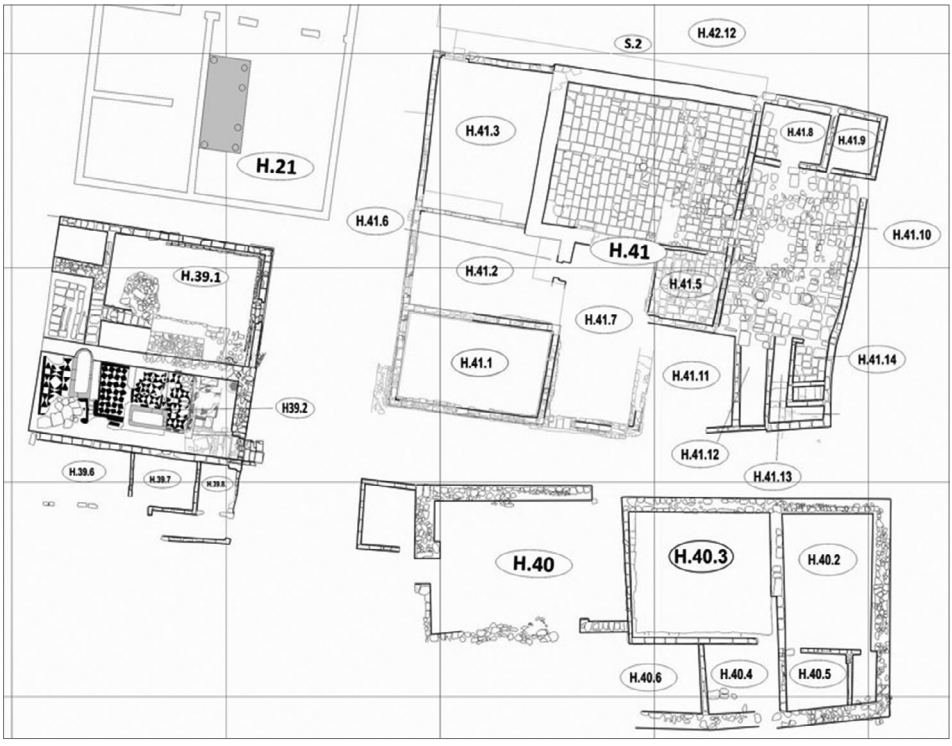

Fig. 4. Structures H39, H40 and H41 (PCMA UW | plan S. Maślak, K. Warecka)

Fig. 5. House H39: top, two chambers built onto the west facade of the building, looking north; bottom, southern part of the building, looking west (PCMA UW | photo K. Jakubiak)

was not preserved on the walls, but was found in fragments in the debris filling the interiors. The multi-colored geometric patterns recorded on these fragments suggest decoration similar to that known to have existed inside the bathhouse and latrine (for the results of previous seasons of field activity see Jakubiak 2022).

Three chambers, the presence of which had already been noted earlier (Jakubiak 2019), were cleared along the southern side of H39 [*Fig. 5* bottom]. A corridor (running east–west), which used the south wall of the bathhouse as its back wall, gave access to these three rooms. The stone used here for construction was much more fragile than the stone blocks used to build the bath walls. While well dressed, the blocks were only 15 cm thick, rather like slabs than blocks, and they were stacked vertically, the narrow end being the base, forming well-designed elevations, which however were not fully stable, and from a technical point of view, not suitable for carrying heavier loads. These were internal

Fig. 6. Latrine in House H39, Room 8 (H39.8) looking north (PCMA UW | photo K. Jakubiak)

partitions and while the two western chambers cannot be identified in terms of their function, the one at the eastern end served as a small latrine (Room 8) [*Fig. 6*]. The sewage system opened out into Street 1 running north–south along the façade of H39. Pottery discovered in the fill of the three chambers (Rooms 6, 7 and 8) dated the structure to the late 2nd and 3rd centuries CE. The assemblage included various types of amphoras and numerous cooking vessels, indicating an auxiliary function. However, the connection with the bathhouse is not clear and it is difficult at this point to say whether these chambers ever belonged to the extended bathhouse complex.

HOUSE H42

The building south of House H40, designated as H42, could be traced on the ground; it may have been cleared to some extent during the early salvage operations by the Egyptian SCA team in the later 1980s. However, since only a part of the original plan had been uncovered (13 rooms), a full excavation was deemed justified in order to study the urban planning in this part of the town [*Fig. 7*]. Exploration of the northern part of the structure revealed the original pavements and floors (Rooms 2–5). In most of the chambers, the floors were paved with limestone slabs [*Figs. 8, 9*], but there were also some dirt floors. The nine

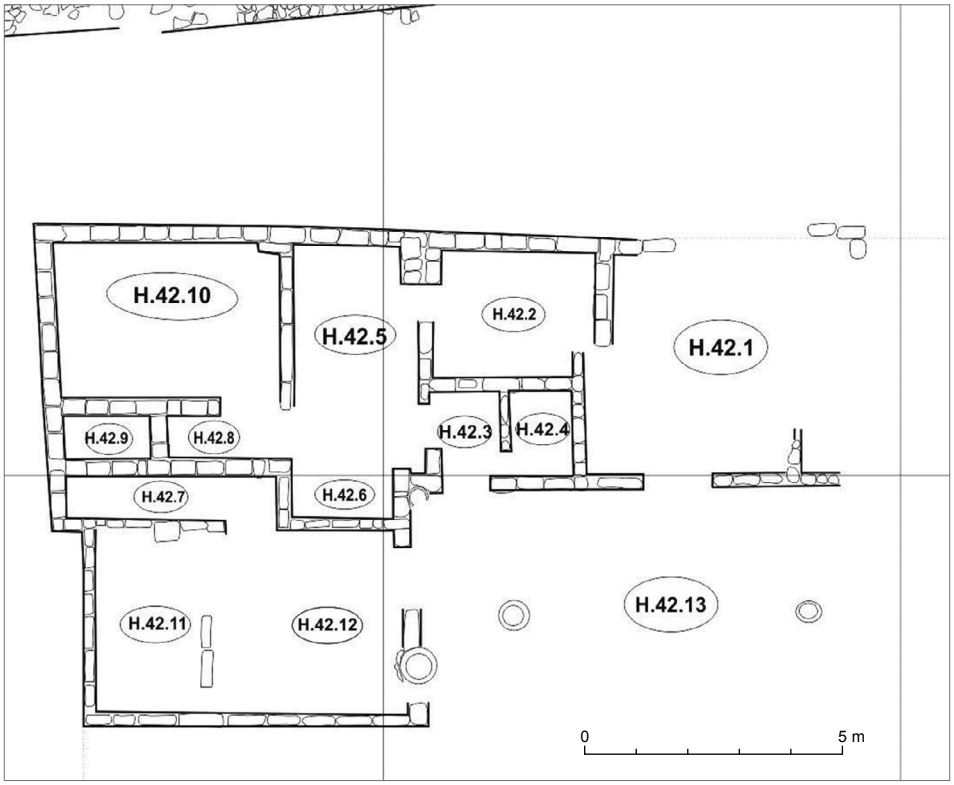

Fig. 7. House H42: plan of partly excavated building (PCMA UW | drawing K. Warecka)

rooms of different plan and size seem to have formed the original layout. The location of a water cistern, the opening to which was discovered in the central part of this house, suggests that the unit may have been an internal courtyard. Based on the present knowledge, such water-collecting infrastructure was present in all of the dwellings in Marina el-Alamein. A squarish chamber was located east of the courtyard [*Fig. 9*]. A vestibule south of the courtyard was entered through a small room west of it. East of the entrance were three longitudinal rooms. A private latrine was located in one of them, located west of the doors. Further west, a corridor leads toward most probably a staircase. A parallel longitudinal chamber to the south is of unknown purpose. However, under the now almost wholly missing stone paving there was a narrow channel supposedly feeding water to the latrine or the water cistern in the courtyard area.

Fig. 8. House H42, Room 5 (H42.5): paved courtyard in the northwestern part of the building (PCMA UW | photo K. Jakubiak)

Fig. 9. House H42, general views: top, looking northwest; bottom, northwestern corner of the house, looking west (PCMA UW | photo K. Jakubiak)

Attached to this part of the building was the southern part of the house [*Fig. 9* top], apparently of a household function, dated by the pottery assemblage to the late 2nd and 3rd century CE. All of the chambers and a large stone-paved courtyard appear to have been constructed in the second phase of the building's functioning. However, there seems to be not much of a chronological difference between the phases. The central, and most certainly the main architectural unit was the large courtyard paved with limestone slabs. It remains to be seen whether it had four elegant porticos or, more likely, a two-columned portico on one side only. A large chamber west of the courtyard was later divided into two smaller units.

HOUSE H.41

The large, almost rectangular house H.41 on the eastern side of Street 1, opposite H.21 and H.39, was another well-designed dwelling (Jakubiak 2019) [see *Fig. 4*]. It succumbed to a heavy fire in the mid-2nd century CE (dating based on the excavated assemblage of artifacts), after which it was not rebuilt. This may have been because the water cistern, a crucial element of the water supply system in the Marina houses, collapsed during the conflagration. The only evidence of later occupation is typical of squatters. It would mean that a part of this urban quarter remained in ruins from perhaps the second half of the 2nd century CE. Nonetheless, the house is an example of the wealthy, well-designed abodes built here starting from the early Roman age. The ground plan consists of nine chambers, different in size and purpose. Three were inner courtyards, each one characterized by an individual design. The first court, a kind of vestibule from a formal point of view, was paved with stone slabs. The opening of a water cistern was located in its western part. A peristyle entrance on the southern side led to a small storage room, a latrine and a staircase leading to the upper floor. The second courtyard, accessed via the upper floor, was a private, informal part of the house, intended only for the inhabitants. The third one, situated in the northwestern corner of the building and separated from the other parts, was accessible via a single doorway pierced in the north wall. It served household functions, most probably food preparation as indicated by several stone mortars, grinders and querns.

SMALL FINDS

Finds from H42 included the usual range of pottery types: storage jars, amphorae, cooking pots and terra sigillata wares. Bronze coins, unfortunately illegible, were also discovered, along with a substantial number of nails in different states of preservation. Meriting attention is a fragmented rectangular, box-like artifact made of iron, which could have served as a brazier for heating the house when needed, on cold days or regularly in the winter season. Some lumps of charcoal were found still deposited inside the rectangular outline of the object.

Several partly preserved oil lamps were recorded, mainly from the late 2nd or beginning of the 3rd century CE. There were some pieces of Greek lamps, as well as Egyptian imitations of such lighting devices. A shell design decorated two relatively well-preserved discus fragments; it cannot be excluded that they were manu-

factured in Egypt. Of particular interest is an almost complete oil lamp, possibly produced in Corinth in the 3rd century CE. The discus was decorated with a scene from the Homeric epic poems, specifically from the Iliad, depicting the episode of Hector's body being shown to his father Priam [*Fig. 10* top].

Fig. 10. Small finds: top, oil lamp with a Homeric scene on the discus from House H.42; bottom, stamp seal discovered in the latrine of House H39, sealing surface and oblique view showing the relief on the pierced side (PCMA UW | photos J. Stawicka, K. Warecka)

Of interest is also a rectangular stone stamp seal discovered in the channel inside the latrine. It is dated by the accompanying pottery deposit to the late 2nd century CE and is decorated with a representation of a crater or table amphora. Additionally, one of its sides bears an engraved falcon's eye (*wadjet* eye), which is right next to the suspension hole that was pierced through the object [*Fig. 10* bottom]. This location makes no sense either formally or technically (the engraving could not be used for sealing purposes), hence it should be considered as an apotropaic symbol designed to protect the owner or his property.

THE NEW ARCHITECTURAL EVIDENCE IN AN URBAN-PLANNING PERSPECTIVE

The results of the project to date, yielding new architectural evidence, justify a discussion of the finds from an urban planning perspective, taking into consideration the results of the various teams working at the site since its discovery in 1986/1987.

Looking at the northern district, and keeping in mind the building phases and their dating as established by the current project, the first thing that draws attention is the dominant role of building H.39 and, more specifically, the small bathhouse that was recognized inside this building. Based on recent excavations, this complex, which was constructed in the 1st century CE, is believed to be the first structure operating in this urban space—like a benchmark or keystone of the urban layout of this quarter—and one is immediately faced with the question why, with enough space to accommodate new construction, the layout of this building is admittedly less than regular as early Roman bathhouses go. It apparently consisted of two module units that did not form the expected rectangular or square overall plan, but were L-shaped instead. One rectangular unit was dedicated to purely bathing activities, with four small chambers, each one different, distributed along the north wall of the building, accessed from a narrow corridor running the length of the unit. The furnace, crucial to the functioning of any thermal installation of this kind, was located in the far room on the eastern end, which, however, had no entry directly from the bathing unit. It was accessible through small and narrow doorways pierced near the northeastern corner of the bathhouse. Interestingly, the structure is hardly homogeneous from a technical point of view, with no two walls being quite the same, which, to a certain extent, can be explained on technical grounds. The best example of composite construction is the north wall of the bath. It is built of limestone blocks, with a number of red-brick pillars incorporated into its structure. Elements of the bath's heating system consisted of clay pipes and rectangular flues for circulating hot air from the hypocaust cellar under the furnace. The last integral part of the bathhouse was the latrine already described in some detail above.

The only other building that is known to have existed in the northern quarter of

the ancient town in the 1st century CE is the predecessor of the early-2nd century House H.41. Traces of the earlier building were recorded during the exploration of the southwestern part of the later structure and in the central courtyard where the subsiding of the ground under the courtyard pavement left a telling ridge. The pottery deposit by the mud-brick wall in the southwestern part of the house was dated to the 1st century CE, justifying the assumption about an earlier structure lying beneath the ruins of this house. At this point, there is every reason to trace the organization of this urban district back to the beginning of the Common Era. The layout revealed by excavations shows the town development reached in this area in the late 1st, but more likely early 2nd century CE. The distribution of architectural remains, both public buildings like bathhouse H.39, for instance, and dwellings like H.41, indicates that a regular insula network was never implemented. The reasons for this were multiple (Jakubiak 2019), not the least being the natural environment, factoring in elements like hot winds resulting in sandstorms in the summertime and cold humid winds from the seaside in the wintertime. A strict Hippodamian street plan was simply not applicable in this area. However, upon closer consideration of various excavated remains, one comes to the conclusion that the designers of the town were not completely oblivious to the principles of Vitruvian urban planning. A town plan based on wind factors, that is, information on how to avoid such adverse factors and the implications of poorly oriented town plans, appears in Book I of Vitruvius' work, at the beginning of the sixth chapter. This knowledge appears to have been applied in Marina el Alamein. Foremost, the orientation of the street network shows a slight deviation from the north, which involves a similar slight deviation for the crossing streets from the east, just as suggested by Vitruvius. Heavy northwestern winds would have broken over the harbor infrastructure, while the southern winds would have first struck the crowded necropolis area. Large buildings were constructed on short streets, more like alleys. This arrangement effectively protected people living here from the unpleasantness of heavily blowing winds while effectively ventilating the quarter.

The present remarks are preliminary in view of the still patchy recognition of the original town planning arrangement of this quarter. Even so, the northern district seems not to differ substantially, whether in the size of buildings or their functional purpose, from the other parts of the town. However, it may have somehow been a special zone. For one, it occupies a spit of land elevated some 2–3 m above the harbor area on the shore of the lagoon, much like the neighboring mound to the east where the residential House H.1 was located. This localization seems of crucial importance for it suggests a form of distinction. This quarter may have well been the residence of the town elite, especially when one takes into account the demonstrated quality of the residential architecture found here. The buildings would have formed a skyline designed to impress visitors arriving from the seaward side. One of these, most definitely, was H.21, perhaps one of the most spectacular structures in this quarter [see *Fig. 1*].

Its association with an official Roman elite residing in the town is highlighted by the emperor cult attested in this complex. The other, possibly emblematic structure in this part of the district was the bathhouse H.39. House H.1 further to the east was a continuation of this skyline, using the same optical trick of dominating the view from the harbor in the north-central part of the town space.

In conclusion, the layout of the remains in the northern quarter, as known to date, suggest urban planning that took into consideration environmental factors for the benefit of the inhabitants, flexibly adapting the traditional Greek and Roman street network to local conditions without losing out on the aesthetic appeal of an impressive townscape when viewed from the sea.

APPENDIX
RESTORATION ACTIVITIES IN 2021

Consolidation and restoration of architectural remains, and preservation of painted plaster fragments, including finds from earlier seasons (and projects) carried out at the Marina el-Alamein archaeological site, has always been a pressing issue and one that still needs a working solution to be instituted. Tourism development in the region, which has grown considerably, especially in the past ten years, has also introduced growing pressure to take up land for new construction projects. Without the implementation of clearly defined criteria of site protection, for which the need is now even greater than it once was, no large-scale restoration proposal can be made. In other words, a long-term site protection strategy needs to be developed with essential institutional support from all parties involved, and respect for the spatial integrity of the archaeological site is crucial in this case.

Pending a clear and comprehensive plan for effective site protection, in the 2021 season, the project focused mainly on the consolidation of recently excavated architectural remains. Restorers concentrated on the most unstable wall inside the bathhouse H.39. The mortar used for wall consolidation was a tested mix of sand and lime with a small part of white cement. Years of conservation experience at the site has demonstrated this kind of mortar to provide the best long-time protection against the elements most responsible for the deterioration of the ancient architectural substance at this open-air site. Additional testing of mortar compositions best suited to site conditions was carried out on two stone blocks, applying two different mixes (the effects are dependent on the raw materials in use at any given moment, that is, the quality of sand and lime). The postulate to cover all of the walls exposed to weathering with a thick plaster, reconstructing ancient building techniques, is also reiterated. This idea is based on archaeological research and technical engineering expertise. Coats of sand-and-lime plaster several centimeters thick have been recorded still in place in many parts of the excavated structures, or

collapsed in the fill of the rooms, indicating the overall effectiveness of this form of wall covering in protecting ancient stone blocks.

Standard preservation procedures were followed with regard to the painted decoration fragments discovered during recent archaeological fieldwork. The fragments were first cleaned and efforts were made to piece together larger fragments of original wall decoration. The fragments were then consolidated with Primal AC33 to stabilize their condition and protect them against further destruction and decomposition. The process is time-consuming and runs over several seasons, which is also the case of the currently discovered fragments.

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References

Czerner, R. and Medeksza, S. (2010). The Commodus monument from House H21C in Marina el-Alamein. *Polish Archaeology in the Mediterranean*, 19, 98–113

Jakubiak, K. (2016). Preliminary report on Polish excavations at Marina el-Alamein in the 2012–2015 seasons. *Polish Archaeology in the Mediterranean*, 25, 127–144

Jakubiak, K. (2018). Marina el Alamein: Newly discovered bath after the 2017 season. *Polish Archaeology in the Mediterranean*, 27/1, 57–66

Jakubiak, K. (2019). Marina el-Alamein (Egypt): A topographical study and the functioning of an ancient provincial town on the Mediterranean coast. *Światowit*, 58, 59–72

Jakubiak, K. (2022), The Marina-el Alamein (Egypt) Bathhouse Complexes and their role for the local community well-being, Novensia 31, 83-98

Medeksza, S. (2001). Marina el-Alamein. Conservation work, 2000. *Polish Archaeology in the Mediterranean*, 12, 63–75

Medeksza, S. (2002). Marina el-Alamein. Conservation work, 2001. *Polish Archaeology in the Mediterranean*, 13, 87–104

Medeksza, S., Bąkowska, G., Czerner, R., Ujma, M., and Zambrzycki, P. (2003). Marina el-Alamein. The conservation season in 2002. *Polish Archaeology in the Mediterranean*, 14, 85–98