

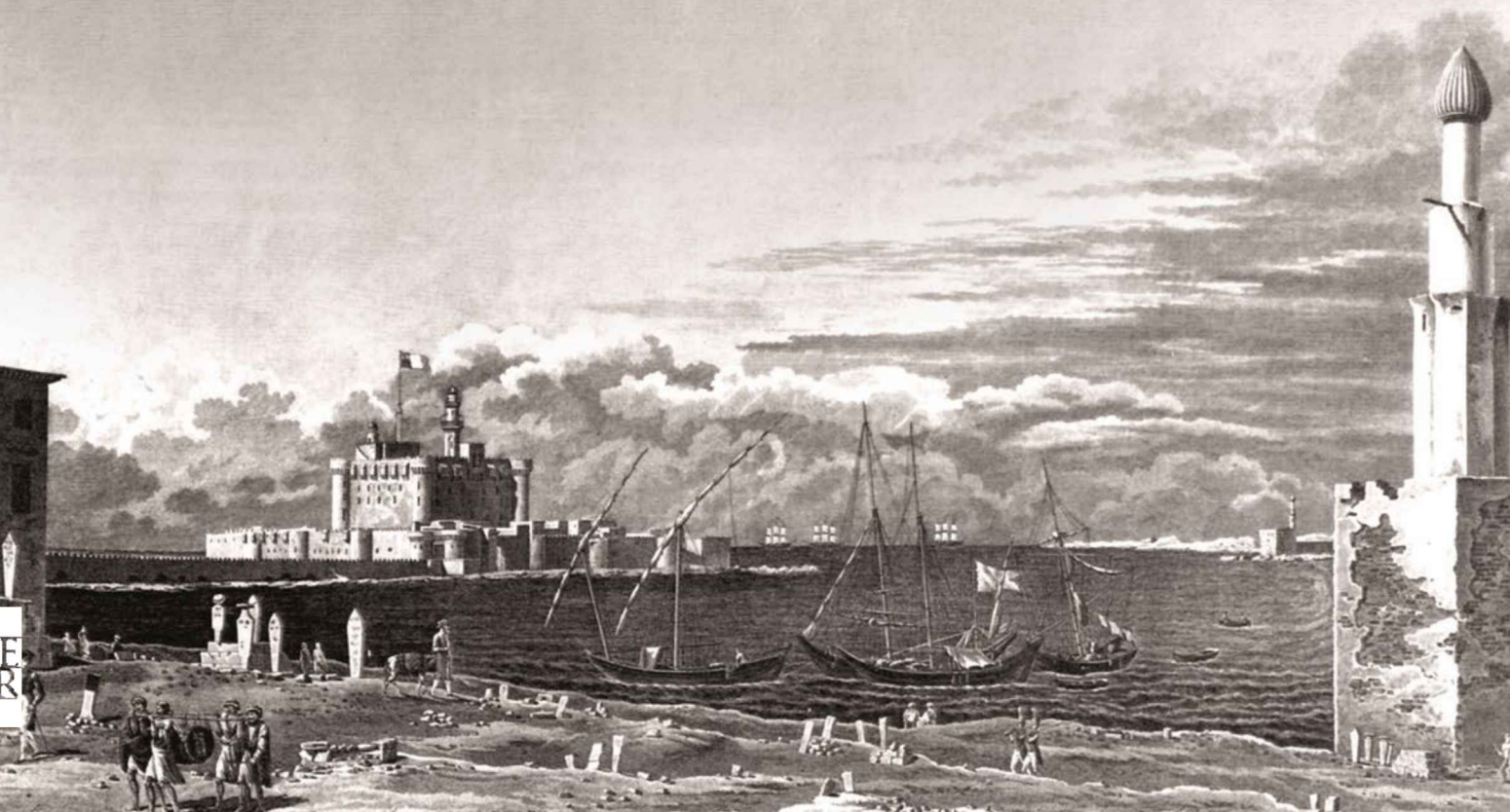
HELLENISTIC
ALEXANDRIA

CELEBRATING 24 CENTURIES

Papers presented at the conference held on December 13–15 2017
at Acropolis Museum, Athens

edited by

Christos S. Zerefos
Marianna V. Vardinoyannis



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The navy of Ptolemaic Alexandria

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Introduction

Following the death of Alexander the Great in 323 BC, his kingdom soon took the form of several competing and conflicting states. The relationship between the Hellenistic kingdoms was quite dynamic, which resulted in constant changes in the extent and limits of these kingdoms. During the first three decades of the Ptolemaic kingdom, the Ptolemies in Egypt had occasional conflicts with their neighbours to the east, the Seleucid Kingdom. Thus the eastern border of the Ptolemaic kingdom was the scene for several events which involved both the Egyptian army and navy.

During the reign of Ptolemy II Philadelphus (282–246 BC), the Ptolemaic kingdom reached its greatest extent, extending west as far as Berenike (present Beni Ghazi on the Libyan coast) and extending north as far as Byblos (present El Gbeil on the Lebanese coast). Moreover, the Ptolemies controlled several Islands in the Mediterranean including Cyprus (Hölbl 2001: 35–67). In order to manage and control this extensive region, the Ptolemies created one of the largest fleets known in antiquity. Moreover, the occasional conflicts gave rise to an obvious requirement for extra security at the Ptolemaic military docks and naval bases in Alexandria.

The Egyptian Navy under the Ptolemies

In the 1st century AD Appian of Alexandria mentions that the navy of the Ptolemies had 2,000 barges propelled by poles, and other smaller craft: 1500 galleys from 'one and a halfs', *hemiolia*, to 'fives', *penteres*, and warship gear for twice that number. The fleet also included 800 'cabin ships', *thalamegoi*, with gilded stems and rams, and on board which the kings themselves went to naval combats (Fischer-Bovet 2014: 58). Thus Appian is speaking about a total of 4300 ships of different types including *hemiolia*, which were a type of a double-banked warship with up to 50 oars, and *penteres*, which were probably triple banked, and *thalamegoi* or cabin boats, which seem to have been a more elaborate type of warship used by the kings (Morrison 1995: 66–77). It is worth noting, however, that the cabin boats were also mentioned by Strabo (17.1.16) when he spoke about *Schedia*, the suburb or Alexandria. He states that *Schedia* has a station or a harbour for vessels with cabins τῶν θαλαμηγῶν πλοίων, which carry the governors when they visit upper Egypt.

Probably, the most detailed description of the Ptolemaic fleet comes from Athenaeus of Naucratis (2nd–3rd centuries AD) when he speaks about the warships in the fleet of Ptolemy II, which were greater in number than all other fleets. Athenaeus clearly states that the list he provides contains the largest types of ships in the fleet and not the entire fleet. He says that the fleet of Ptolemy II consisted of 2 'thirties', 1 'twenty', 4 'thirteens', 2 'twelves', 14 'elevens', 30 'nines', 36 'sevens', 5 'sixes' and 17 'fives'; and from the 'fours' down to half-decked triremes, *trimiolia* as they were called, he had twice as many as all the above put together. In addition to these, Ptolemy had further vessels located in the different islands and in the other cities under his dominion, and in Libya, all these totalling more than 4000 (Morrison 1996: 37).

Hence, according to Athenaeus, Ptolemy II had a total number of 4333 ships, which is very close to what Appian mentioned earlier – 4300 ships – except that Appian was not clear about the types of ships. So, the Ptolemaic fleet had more than 4000 ships, the majority of which were not stationed in Egypt but in other regions of the Mediterranean under Ptolemaic control.

The types and naming of classical and Hellenistic warships have been subject to much discussion over recent decades (Casson 1995: 97–135; Tilly 2004). However, it is generally believed that the warship type is identified by the number of oarsmen operating at one side of the ship (Casson 1996: 78–86). For example, a 'six' could have had either two levels of oars with three men on each oar, or it could have had three levels of oars with two men on each oar. However, it is known for a fact that there was no warship in antiquity with more than three levels of oars, so the variation was mainly in the number of oarsmen handling each oar. On the other hand, according to historical evidence regarding Hellenistic fleets in the Mediterranean, it is believed that no ship larger than a 'ten', *dekeres*, is known to have fought in battles. So all ships larger than the 'tens' were mostly used for processions or as flagships in battles but not for actual fighting (Morrison 1996: 255–277). Therefore, by looking at the Ptolemaic fleet, it is noticeable that the majority of ships, which were based in Egypt, were actually smaller in size than a 'ten'. Out of the 333 warships that were based in Egypt 310 of them (93% of the fleet) were 'nines', 'sevens', 'sixes', 'fives', 'fours' and even smaller vessels, while warships



larger than a 'ten', such as the 'elevens', 'twelves', 'thirteens', 'twenties' and 'thirties' numbered only 23 ships (7% of the fleet). These were the royal barges and flagships which were probably kept in the vicinity of the Ptolemaic royal quarters.

This raises the question of the whereabouts of the military harbour of Alexandria where the Ptolemies kept their warships.

The Military Harbour of the Ptolemies

The Eastern Port of Alexandria was meant to be the main centre of maritime activities in the Ptolemaic capital. However, it has been mentioned repeatedly in classical sources that the main problem with the Eastern Port was the narrowness of its entrance (Goddio 1998: 12-16). Strabo, for example, describes the entrance not only as being narrow, but also as containing a number of underwater and projecting rocks and reefs which '... at all hours, roughen the waves that strike them from the open sea' (Strabo 17.1.6). Also Julius Caesar states that '... on account of the narrowness of the passage there can be no entry for ships into the Harbour without the consent of those who are in occupation of Pharos' (Caesar, *De bello civili*, 3.112).

However, as a major city and the capital of a Hellenistic kingdom, Alexandria contained commercial, military and private harbours; each of them had different characteristics, yet, they all played an integrated role in the development of the city. The fact that the entrance of the Eastern Port of the city was relatively narrow made it easier to control and defend; therefore, it would have been suitable to accommodate warships. Moreover, since the Eastern Port oversaw the centre of the city and its emporium, it was also used by merchant vessels. That raises the problem of dividing the Eastern Port of Alexandria between such different uses. How could the security of the naval fleet be maintained while foreign merchant ships were roaming through the harbour?

In fact, there is no direct evidence available regarding the exact nature or location of the military harbour in Ptolemaic Alexandria. However, it is known, for example, that during the war that Julius Caesar waged on Alexandria in 48 BC, and after he burned most of the Egyptian fleet in the great port, the Egyptians were able to recall 22 'fours', *quadriremes*, which were at that time guarding the mouths of the Nile, and they repaired five 'fives', *quinqueremes*, which were kept in the secret royal dockyards (Burstein 2007: 102). Hence, it is evident that the Nile mouths provided major stations for warships in the Ptolemaic period. Additionally, key towns on the Nile, such as *Schedia*, and *Naucratis* would have contained bases for smaller warships, like the *hemiolia* or even the *triremes*. Yet, the larger and heavier ships must have been kept in the main harbour of Alexandria.

The geophysical underwater surveys that were carried by the Institut Européen d'Archéologie Sous-Marine in the great port of Alexandria over the past two decades have revealed a wealth of evidence for the appearance of the port in antiquity (Goddio & Bernard 2004). The survey resulted in detailed mapping of the internal layout of the port, including the ancient quays and jetties which formed a number of internal harbours within the main port (Figure 1). Accordingly, it became evident that the Great Port of Alexandria included at least four internal harbours which could have accommodated both military and commercial vessels. Three of these internal harbours are located at the eastern side of the port of Alexandria and one is located at the western side of it. The discovery of a number of internal harbours confirms the textual and historical evidence that mentioned 'hidden' royal harbours and secret naval installations within the Eastern Port of Alexandria (Strabo 17.1.9; Morrison 1996: 137-141). This leads to a discussion of a feature which was quite common in ancient harbours: the separation between the military and commercial sections of the harbour.

As early as the 5th century BC, there was a distinct separation between military and commercial harbours, such as in Piraeus and Carthage, where separate basins were dedicated to warships and to merchant vessels (Blackman 1982; 1995). Alternatively, there could be separate sections within the same harbour dedicated to warships and others dedicated to merchant vessels, such as in Syracuse and Alexandria (Gerding 2013: 535-541). Nonetheless, one of the main features of military harbours in antiquity were the shipsheds where warships were stored and maintained (Figure 2). It is believed that the Zea harbour in Piraeus contained 196 shipsheds, while the military harbour of Carthage housed 170 shipsheds mostly dedicated to *triremes* (Gerding 2013: 307-318, Rankov 2013: 420-485). However, unlike the case of Piraeus and Carthage, the Eastern Port of Alexandria was used for both military and commercial purposes. Yet there must have been some sort of internal separation between the internal harbours in order to guarantee the security of the naval fleet.

By looking at the layout of the port of Alexandria, and the submerged harbour installations which were discovered through underwater archaeological investigation, it becomes evident that the division of the Port between commercial and military is quite feasible. The Eastern Port of Alexandria contained at its eastern side three internal harbours. The first inner harbour, which corresponds with what Strabo (17.1.9) describes as 'hidden', had an area of about seven hectares with about 500m length of quays. Its entrance faced northwest and was protected from the north and the west by reefs and from the south by a 250m long jetty 250m (Goddio 1998: 18-21). The entrance of that harbour could not have been visible for ships entering



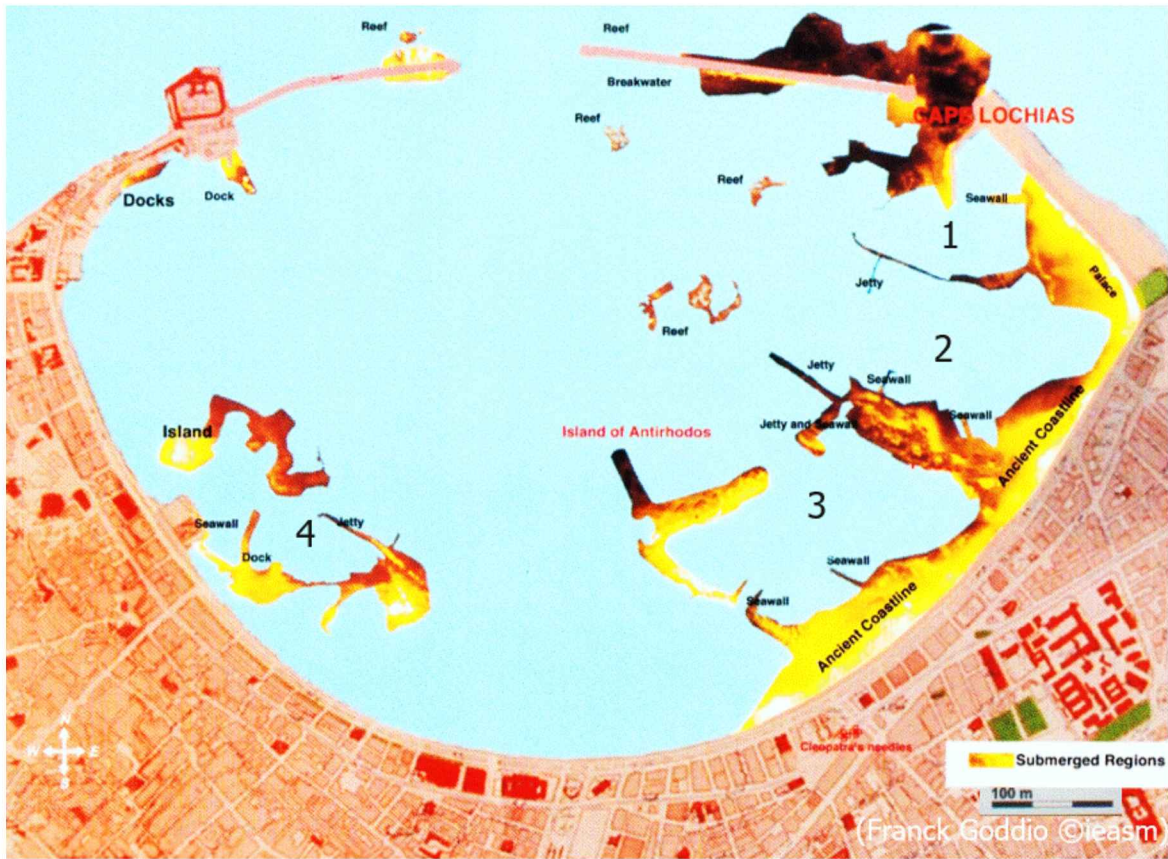


Figure 1. The Eastern Port of Alexandria. The underwater geophysical investigation revealed the remains of four internal harbours which were used for military and commercial activities (after Goddio and Bernard 2004: 147).

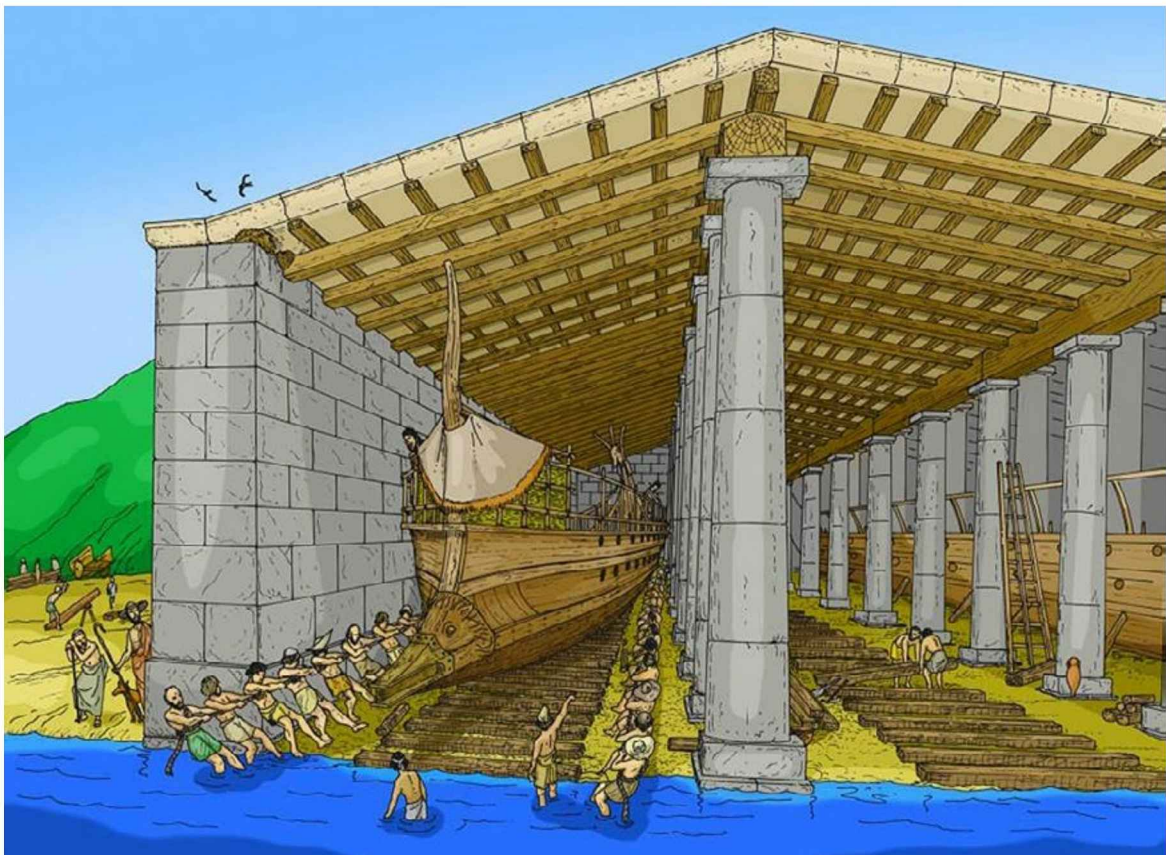


Figure 2. Artistic impression of shipsheds (drawing by Yannis Nakas).

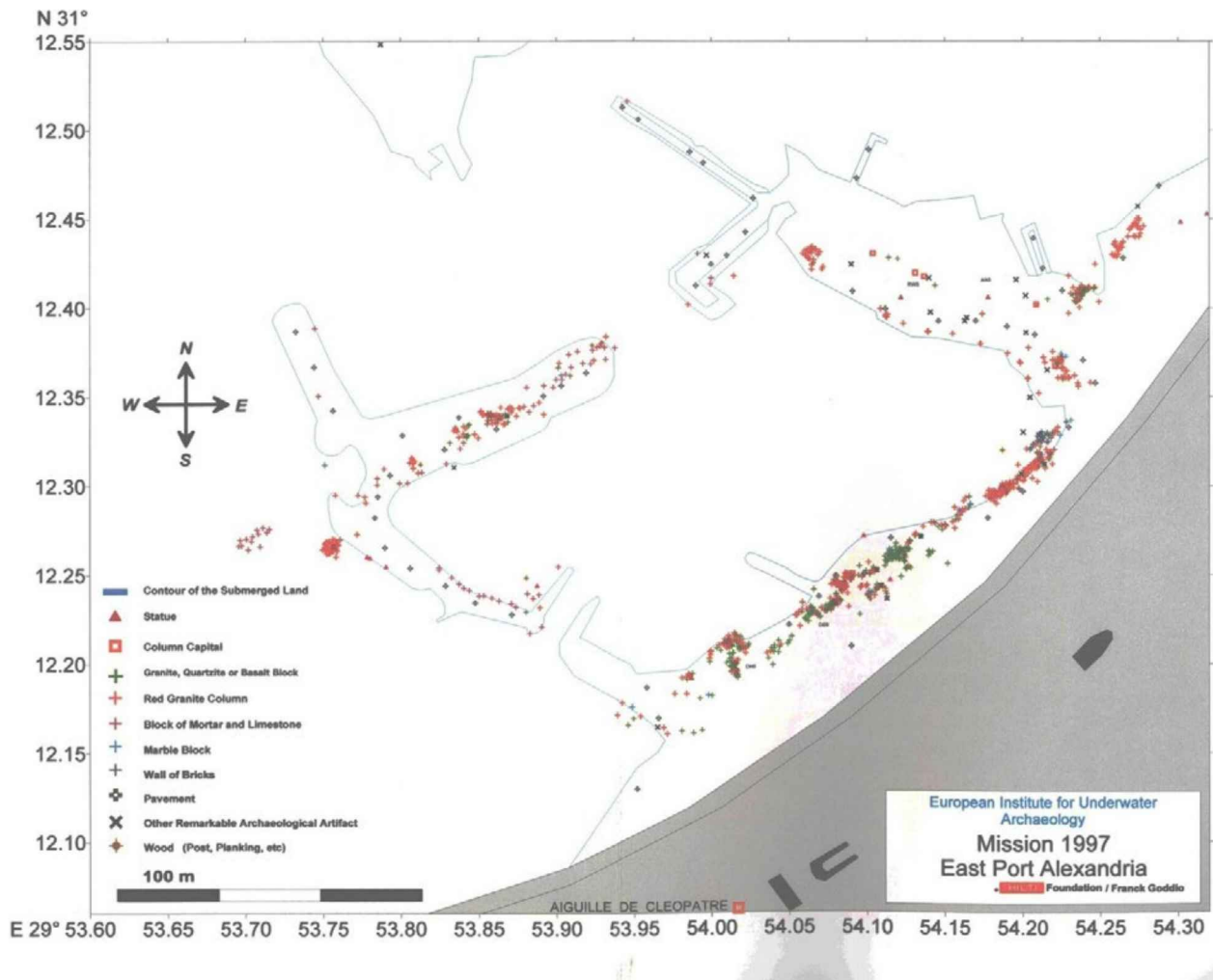


Figure 3. The third internal harbour had an area of about 16 hectares with about 1,250m length of quays and a concentration of archaeological remains including more than 500 granite columns (after Goddio *et al.* 1998: 51).

the Eastern Port since it would have been hidden behind the protruding reefs in the middle of the port. This inner harbour oversaw the Ptolemies' palaces, so it was probably used privately by the royal family.

The second inner harbour had an area of about 15 hectares with about 800m length of quays. It was enclosed by a jetty to the northeast, a peninsula to the southwest and the ancient shoreline to the southeast. The harbour also included a number of smaller quays made of limestone blocks and lime mortar.

The third inner harbour had an area of about 16 hectares with about 1,250m length of quays (Figure 3). It was enclosed by the ancient shoreline to the south-east, a 350m long peninsula to the north-east and the submerged island of Antirhodos to the north-west. Some parts of the island, which were paved with limestone, slope down gradually towards the seabed (De Graauw 1998). Moreover, the distribution of archaeological remains within the submerged inner

harbours of Alexandria reveals that there is a particular concentration of remains, especially related to harbour structure and possibly shipsheds, around the shores of the third inner harbours. Such remains include paved quays and jetties as well as over 500 granite columns. Another feature which is clear in the third internal harbour is that it had two openings, the larger one is c. 90m and the smaller is c. 30m, which makes it easy to control and to secure (Goddio 1998: 12-52); a major feature in military harbours. Accordingly, it seems reasonable to suggest that the third and largest internal harbor could have been dedicated to the Ptolemaic fleet.

Extensive research of the Zea harbor in Piraeus established that the largest shipsheds recorded there measured c. 54m in length and 5.7m in width (Rankov 2013: 437-441). Accordingly, the largest internal harbour in Alexandria, with its 1,250m of quays could have easily accommodated 150-200 Shipsheds able to house trireme size warships or larger. Hence, going

back to Athenaus list of warships, it can be inferred that out of the 310 operating warships that were based in Egypt, 200 warships could have been housed in the third internal harbour, while the rest, could have been based at the mouths of the Nile and elsewhere in Egypt. On the other hand, the royal ceremonial warships, such as the 'elevens', 'twelves', 'thirteens', 'twenties' and 'thirties', which numbered only 23 ships for the use of the royal family, could easily have been accommodated in the other two inner harbours, which overlooked the royal quarters during the Hellenistic period.

Nevertheless, the fourth internal harbour, which was located at the southern shores of the Pharos Island next to the *Heptastadion*, could have been exclusively dedicated to the trade and merchant vessels. This was also facilitated by the link between the eastern and western harbours of Alexandria through the openings of the *Heptastadion*, which allowed the movement of merchant vessels between the two harbours.

This whole establishment changed significantly under Roman rule. The *Classis Alexandrina* took over what was left of the Ptolemaic naval forces after Actium and the *Potamophylacia* took over policing the Nile (Pitassi 2012: 47-50). The numbers and sizes of warships decreased significantly, and the internal harbours within the Eastern Port of Alexandria were mainly used by merchant vessels, particularly the grain fleet. Under Roman rule, Alexandria ceased to be the capital of an independent kingdom, however, her glory and uniqueness persisted.

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