

UNDER THE MEDITERRANEAN I

Studies in Maritime Archaeology

edited by
STELLA DEMESTICHA & LUCY BLUE

WITH KALLIOPI BAIKA, CARLO BELTRAME,
DAVID BLACKMAN, DEBORAH CVIKEL, HELEN FARR
& DORIT SIVAN

HONOR FROST FOUNDATION

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HARBOURS

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Patara's Harbour

New evidence and indications with an overview of the sequence of harbour-related defence systems

Erkan Dündar and Mustafa Koçak***

The sheltered natural bay was crucial to the settlement at Patara, in Lycia, as it became an important harbour city. Alluvial infilling of the harbour and the sacking of the town in 1362 led to Patara's abandonment. Recent studies show the harbour became a *limen kleistos* in the late 4th century BCE when it was enclosed by a seawall, and there is evidence of military shipsheds of the same date on the western shore of the inner harbour. The promontory to the west of the inner harbour had a medieval *castrum*, while Tepecik settlement was the site of the earliest harbour-related defensive structures.

Keywords: Patara, Lycia, harbour, fortification, limen kleistos, shipsheds.

Patara, one of the important harbour cities of southwestern Anatolia, was the gateway to the sea from the Xanthos valley in western Lycia, the location of major cities such as Xanthos, Pinara, and Tlos. The earliest finds from Patara date from the 3rd millennium BCE and were unearthed on Tepecik hill (30 m), a natural rock ridge north of the city centre, to the east of the inner harbour (for EBA II ceramics, see Işık, 2000: 6, fig. 5). The data concerning the most recent settlement was obtained from the medieval city lying to the south of the inner harbour (Işık, 2011: 99-101).

The naturally sheltered bay, used as a harbour, was doubtless the most significant factor regarding the foundation of Patara as a settlement, and the loss of the harbour was undoubtedly a leading factor in the abandonment of the town (Figs 1 and 2). The city had no hinterland that could supply agricultural products.[1] With settlement dating back to the early 3rd millennium BCE, the natural bay was used as a harbour or a safe mooring but later, as a result of the accumulation of silt brought by the Xanthos river, *c.*5 km west of the bay, the harbour gradually filled in, becoming a swamp from late in the 14th century CE, with the port and city largely abandoned by the mid 15th century CE (Öner, 1999; Duggan, 2010; İşkan and Koçak, 2014).

Patara had a strategic location on the eastern Mediterranean maritime routes, with sea routes to the east and the west, north and the south intersecting here. The geopolitical location of the city left traces in written sources (Diod. Sic. 19.64.5-8; 20.93.3-4). Being suitable for a naval base, the harbour of Patara witnessed many struggles between the prominent powers of the Mediterranean including the Hecatomnids, Antigonids, Ptolemaic, and Seleucid kingdoms, especially from the 4th century BCE. Although the

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1 Today, the situation is different: the silting of the Xanthos delta created a fertile farmland now covered with greenhouses.

in: Demesticha, S. and Blue, L. *et al.* (eds) 2020, *Under the Mediterranean I. Studies in Maritime Archaeology*, Leiden: Sidestone Press, pp. 127-146.



Figure 1. Aerial view of Patara with the silted harbour bay (@ Patara Excavation Archive).

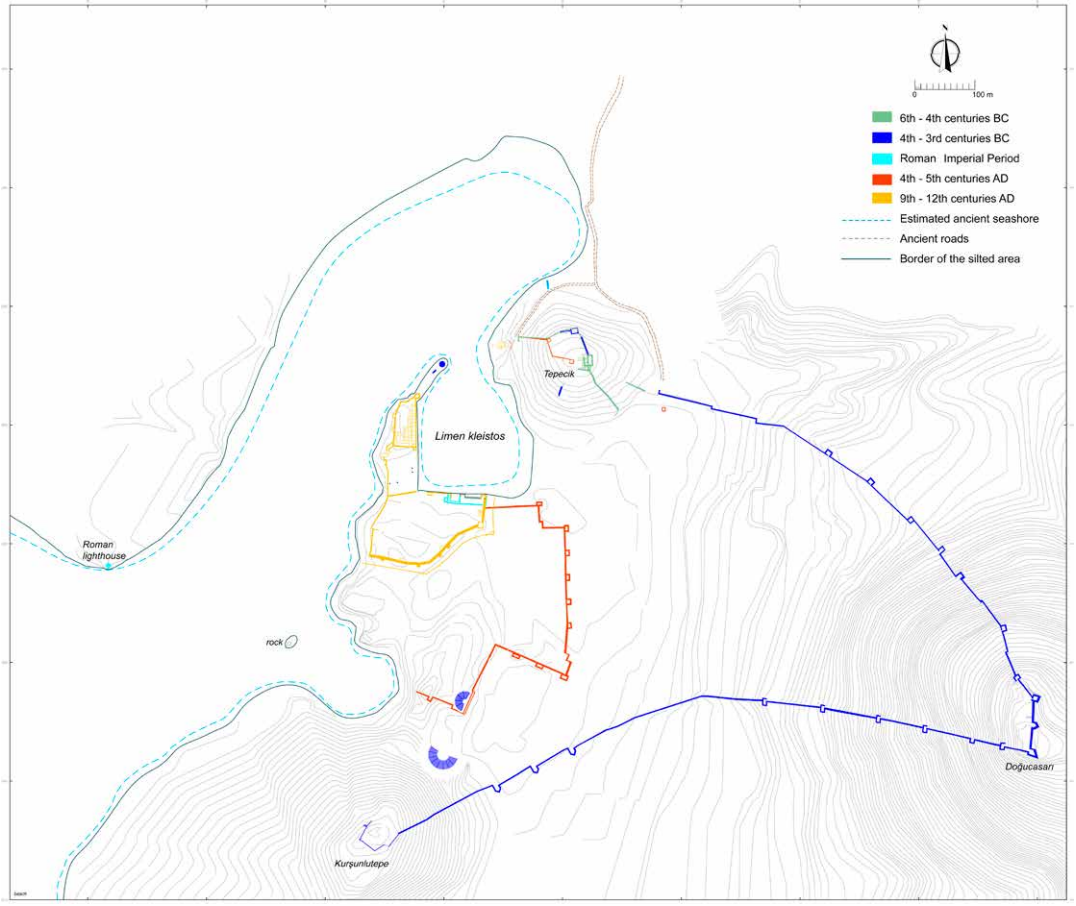

Figure 2. City plan of Patara (@ Patara Excavation Archive).

military prominence of the city seems to have diminished during the period of the *Pax Romana*, its strong logistic position in the region was maintained with the construction of its Imperial lighthouse (İşkan, 2019: 302-317) and Hadrianic *horrea* (Koçak, 2016b: 87-92). Patara obtained military prominence again in the Late Antique period, under the Byzantine (East Roman) Empire and under the Seljuks of Anatolia (The Seljuks of Rum) and into the Beylik period (Foss, 1994: 14-16; Duggan, 2010).

Late Archaic and Early Classical period (6th-5th centuries BCE)

Recent studies indicate that Tepecik, in the north of the city, which overlooks both the harbour and the land route that reaches the city from the north, played an important role in the control and defence of the harbour (Dündar, 2016: 43-44; Dündar and Rauh, 2017: 572) (Figs 2-4). The earliest remains of the defence system date from the 6th century BCE; a cyclopean fortification wall, the width of which ranges approximately 2-2.5 m. It begins with a tower (T14) on the northwestern side of Tepecik, adjacent to the harbour (Becks, 2011: 5) (Figs 4-5). This tower also controls the secondary road leading towards Tepecik from the north. In the wall that reaches the summit of Tepecik from the tower to the east, there is a door roughly 1.5 m wide to control pedestrian traffic: this door allows passage to the flat area of Tepecik via a series of steps (Fig. 6). On the east side of the door, the wall protrudes 5 m to the north before turning to the east. Thereby the door was concealed by the wall to the east, and from any threats from the northern road. Continuing to the east, the wall follows the topography on the flat top of the hill and extends to the south. This wall is connected to a building complex near the top of the hill which can be termed the 'Tower House'. This Tower House, the walls of which are around 2.4 m wide, has a sequential plan extending from north to south, including a succession of two rooms and one cellar (Işın, 2010: 93-104) (Figs 4, 7). The excavations conducted to date have not been able to show the presence of any other towers, apart from the defence tower by the harbour on the northwest slope of the hill. In this respect, it seems probable that the defence in the east of Tepecik during this period was provided by this noteworthy structure. The structures that seem most closely related to this building, unique in its dimensions to date, are in the region of Lycia at Avşar Tepesi (Zagaba) (Thomsen, 2002: 76-78) and, in the region of Caria, the Fortress of Alâzeytin Kalesi (Syangela) (Radt, 1970: 27). These examples date from the 6th and 5th centuries BCE.

The wall from the Tower House to the southwest extends for 86 m in a straight line to the foot of Tepecik



Figure 3. Aerial view of Tepecik settlement seen from the northeast (@ Patara Excavation Archive).

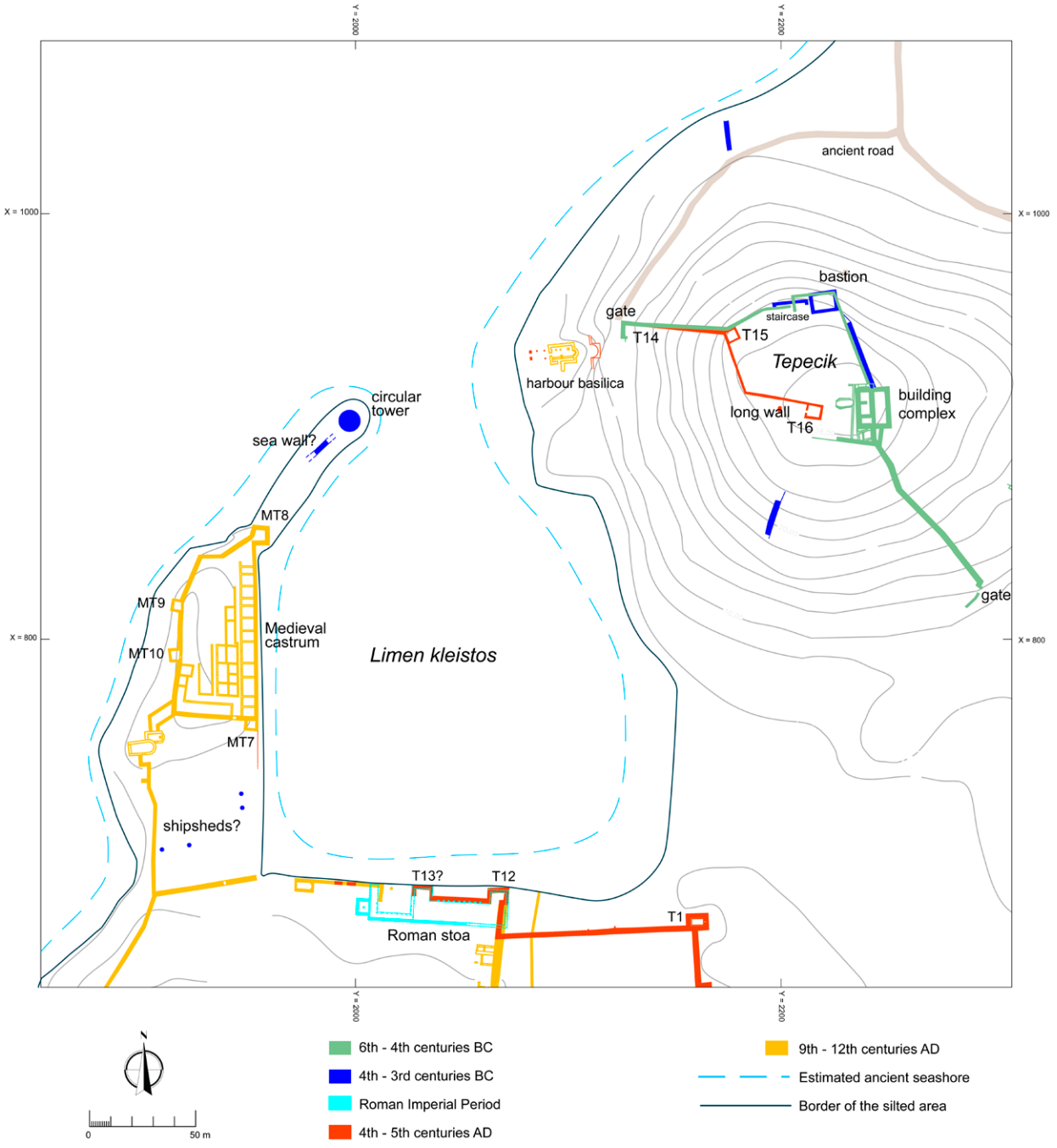

Figure 4. Plan of Tepecik settlement and the inner harbour: Roman stoa in red; (@ Patara Excavation Archive).



Figure 5. The 6th-century BCE tower on the west slope of Tepecik settlement (@ Patara Excavation Archive).



Figure 6. The 6th century BCE gate and steps leading to the top of the Tepecik settlement (@ Patara Excavation Archive).



Figure 7. The remains of a 'Tower House' on the top of the Tepecik settlement (@ Patara Excavation Archive).

and is divided by another gate, 2.4 m wide (Figs 4, 8). It is thought that the wall extending to the southwest beyond this gate was connected to the harbour. The wall that excludes the northern and eastern sides of Tepecik surrounds only the western and southern sides connected to the harbour and encloses an area of approximately 7.5 hectares. Thus, even if the defence of the harbour was not directly and actively provided from here, effective control through surveillance was exercised, in particular from the tower on the slope. Whether there were defensive structures on the promontory, which at this time extended 150 m along the northern part of the inner harbour and, if so, what form these took, are among the questions to be answered by research in forthcoming excavation seasons. It seems reasonable to suggest that not all, but at least some, of the 50 warships (Diodorus suggests 40 ships (Diod. Sic. 11.3.7)) that were sent by the Lycians to the Persian navy to fight in the sea battle of Salamis in 480 BCE (Herodotus, 7.92.1) were deployed from the harbour of Patara.[2] If this were the case, it is most probable that the inner harbour at that time had a military character.

2 Simply because the Pataran harbour is the only known harbour of the Xanthos valley capable of serving strong cities of that time such as Xanthos, Tlos, Pinara, and Patara.



Figure 8. The 6th-century BCE gate on the southwest slope of the Tepecik settlement (@ Patara Excavation Archive).

Late Classical and Hellenistic times (4th-1st centuries BCE)

Excavations in 2009 and 2013 in the north bastion, overlooking the main road into the city, to the north of the plateau of Tepecik, showed a new defence system constructed in the mid 4th century BCE. This defence system provided important new data about the defensive model used for many sites – not just Patara, but throughout southwestern Anatolia (Figs 4, 9). The find context and a lead sling-bullet inscribed Ἀλεξάνδρου-Φιλίππου (of Alexander, [son] of Philip) that was unearthed from the north bastion indicate the area was used by a garrison and that the north bastion may have been destroyed as a result of an assault in the course of the campaign in Lycia by Alexander the Great in 334 BCE (Dündar and Rauh, 2017). In the context of this find, the excavations in the bastion and by the north wall have provided important new criteria for the dating of the defence systems in southwest Anatolia. The masonry technique used for these two buildings (the north bastion and the north wall) and some defence systems in various parts of the city can, in consequence, be dated to the mid 4th century BCE. It is also possible to generalize from this identification and dating of the wall styles to other defensive structures in the area. The similarity between the masonry technique of the Tepecik north bastion, on the north wall, and that of some defence systems on Doğucasarı hill (elevation 180 m), which is the tallest hill to the east, shows the presence of freestanding bastions before the arrival of Alexander the Great or his forces. However, the masonry technique used for these buildings differs from that of the 'Hellenistic' walls surrounding the city and shows that these walls were constructed after the construction of the freestanding bastions (Dündar and Rauh, 2017: 571-572).

Lycian cities, ruled by the local dynasties under Persian control from 546-544 BCE (Bryce, 1983: 31-42; 1986: 100-101) participated, like many city-states in western Anatolia, in a rebellion that put the Persians in a difficult situation in 366-360 BCE (Diod. Sic. 16.74; Childs, 1981: 77-78; Weiskopf, 1989: 68). The leader of this uprising in the Lycian region was Pericles, who declared himself the king of Lycia. Following the failure of Pericles and the other rebels in about 360 BCE, the administration of Patara, like all the Lycian cities, was left to Hekatomnos, the satrap of Caria (Diod. Sic. 16.74; Childs, 1981: 77-78; Bryce, 1983: 39-40; 1986: 114; Weiskopf, 1989: 68). In this context, it is possible to say that the freestanding bastions located on Tepecik in the



Figure 9. North bastion and north wall on the Tepecik settlement (@ Patara Excavation Archive).

north of the city, in Doğucarası in the east, and perhaps on Kurşunlutepe (64 m) to the south, were constructed by the Hecatomnid dynasty, which for a short time ruled the city and region on behalf of the Persians. The construction of the bastions at Patara was possibly the result of a Hekatomnid decision to impose a garrison on the settlement and have control over the harbour (Dündar and Rauh, 2017: 572).

Similar freestanding bastions, built to protect and control the harbour, also existed at Kaunos. There, Schmaltz studied freestanding bastions dated, like those at Patara, to the late 4th century BCE (Schmaltz, 1994: 188, 192-201). There are important historical accounts in respect to the Kaunos bastions – Diodorus recounts that when Antigonus Monophthalmus attacked Kaunos in 313 BCE, although the whole city was conquered, the place called 'ἄκρα' overlooking the city was besieged but could not be reached or taken (Diod. Sic. 19.75.5, 20.27.2). It is also known that Ptolemy I attacked Kaunos in 309 BCE and that he, like Antigonus Monophthalmus, was able to attack the city without difficulty but that his forces experienced strong resistance from the two bastions named 'Heraklion' and 'Persikon'. It is recorded that one of these bastions was captured by the Ptolemaic forces, and the other surrendered to them. Identifying these two bastions through proper names indicates that they were the type of places that acquired individual place names and that they were in different places to the area termed *akra* in the attack by Antigonos Monophthalmus. Thus, we can understand that at least three freestanding bastions controlled the harbour in Kaunos, as we have suggested in respect to Patara (Dündar and Rauh, 2017). The fact that the forces of Antigonus Monophthalmus and Ptolemy could attack Kaunos without difficulty whenever they wished indicates that walls had not yet been constructed to surround the city and that the defence was conducted only by the Hecatomnid/Persian soldiers in the bastions (military garrisons).[3] It seems that Patara would also have been defended by troops in the bastions.

It is known that Ptolemy I Soter's effect on the area was short lived: he seized Antigonus Monophthalmus' garrison at Xanthos in Lycia with his navy via the harbour of Patara in 309 BCE (Diodosius Siculus, 19.64.5; Polyainos, 3.16) but Antigonos' son, Demetrius Poliorcetes, regained control of Patara soon after. It seems most unlikely that the city walls of Patara or other places in southwestern Anatolia, dated to the Hellenistic period, were constructed by the Ptolemaic forces within such a short period, perhaps a matter of only months.

3 For the Hecatomnid/Persian bastion or garrison and mercenaries in Hyparna (Ὕπαρνα) near Lycia, see (φυλακὴν ἔχον ξένους μισθοφόρους). Arr. An. 1.24.4.

Seawall and tower

In 305 or 304 BCE, Demetrius Poliorcetes' ships in the harbour of Patara were attacked by the Rhodian Menedemus; Menedemus set an anchored ship on fire, and also seized many cargo ships carrying provisions to the army, sending them to Rhodes (Diod. Sic. 20.93.2-5; Plut. Demetrios, 22.1). From this, it can be suggested that Menedemus could operate off the coast of Patara or within the harbour bay, but could not (or would not) intervene in the inner harbour. In other words, it can be suggested that the attack could not reach the city. In consequence, it can be inferred that the city walls of Patara had been constructed by the end of the 4th century CE and that the military inner harbour was somewhat protected (Baika, 2013: 211). Archaeological evidence that can support this view was obtained during surveys conducted in the inner harbour in 2017. Described in detail below, the evidence for this is the remains of a wall and a circular tower, which seem to be independent of each other but in fact form parts of a single seawall construction (Figs 4, 10-14). The base of the visible remains of this tower must have had a diameter of 10 m (Figs 4, 10-11). The wall that leads straight to this tower is 2.4 m wide (Figs 11-14). The building blocks of the wall, which was evidently constructed during Late Antiquity, carry a great morphological similarity to the limestone blocks used in the early Hellenistic fortification wall (Bruer and Kunze, 2010: 30-32, figs 25, 27, 29; Dündar and Rauh, 2017: 564-565, fig. 57). This raises the question of whether the blocks forming this seawall – which was constructed long after the Hellenistic period – were already there. That is to say, the blocks of a Hellenistic seawall (and a defensive wall on the promontory) may well have been re-used for the same purpose centuries later.[4] If this was the case, we can suggest that the harbour was enclosed or made closable by a seawall, as early as the late 4th century BCE, making it a *limen kleistos* (Lehmann-Hartleben, 1963: 65-74; Baika, 2013: 211).

Shipsheds?

Another indication that the Patara inner harbour may have been a *limen kleistos*, at least from the late 4th century BCE onwards, can be observed at the south end of the promontory where it is connected to the land. This is an area of about 50 x 80 m, located between the Byzantine castrum mentioned below (Bruer and Kunze, 2010: 79-101), and the medieval city fortress (Figs 4 and 14). This area is bounded to the north by the garrison and to the south by the city wall, while a wall much narrower than the others extends to the west, towards the bay. On the east side of this area, towards the inner

4 Bruer and Kunze (2010: 72) mention a 14 m wall beneath the medieval walls of the castrum.



Figure 10. The remains of a tower at the entrance to the inner harbour (@ Patara Excavation Archive).



Figure 11. Aerial photo of a tower and seawall at the entrance of the inner harbour (@ Patara Excavation Archive).



Figure 12. Remains of a seawall at the entrance of the inner harbour, seen from the south-east (@ Patara Excavation Archive).

Figure 13. The seawall at the entrance of the inner harbour (@ Patara Excavation Archive).



Figure 14. Aerial photo taken from the Tepecik settlement, in the foreground the newly excavated Late Antique tower, in the background the inner harbour (@ Patara Excavation Archive).



harbour, there are no traces of a wall. So this side was open towards the inner harbour. At first glance, there are no building remains in the area. Bruer and Kunze (2010: 71, 100) suggested that this area might have been a place where ships were hauled up out of the water, and there is the example of modern fishery practice in which hauled boats are supported on wooden posts and maintenance work conducted. However, Bruer and Kunze do not directly associate the area with military purposes. They only mention that the inner harbour was a military port (*Militärhafen*) without providing further information on this matter. A remarkable find from the survey carried out in the area, which is very difficult to access due to its dense vegetation, is four column shafts whose approximate locations are marked on the plan (Fig. 4). The northernmost of the columns still stands 1.5 m in height (Fig. 15). The second shaft, which is 13 m from the first, is on the same axis to the east and it stands about 0.5 m in height. The third is approximately 13 m north of the axis formed by former two, while the last one is 6.65 m



Figure 15. Column shaft in the south section of the promontory (@ Patara Excavation Archive).

north of the third shaft. All of these shafts are 0.5 m in diameter. How is this find to be interpreted? The location of this 'empty' area next to the inner harbour suggests these remains may belong to shipsheds.

From well-known examples of shipsheds, there seems a distinct possibility that these columns supported a roof (Gerding, 2013). The width of 6.65 m between two columns is comparable with the well-known shipsheds from Zea, Oeniadae, or Carthage (Ginalis, 2014: 62, table 1). Approximately eight shipsheds, each having a width of 6.65 m, could be placed side-by-side within this

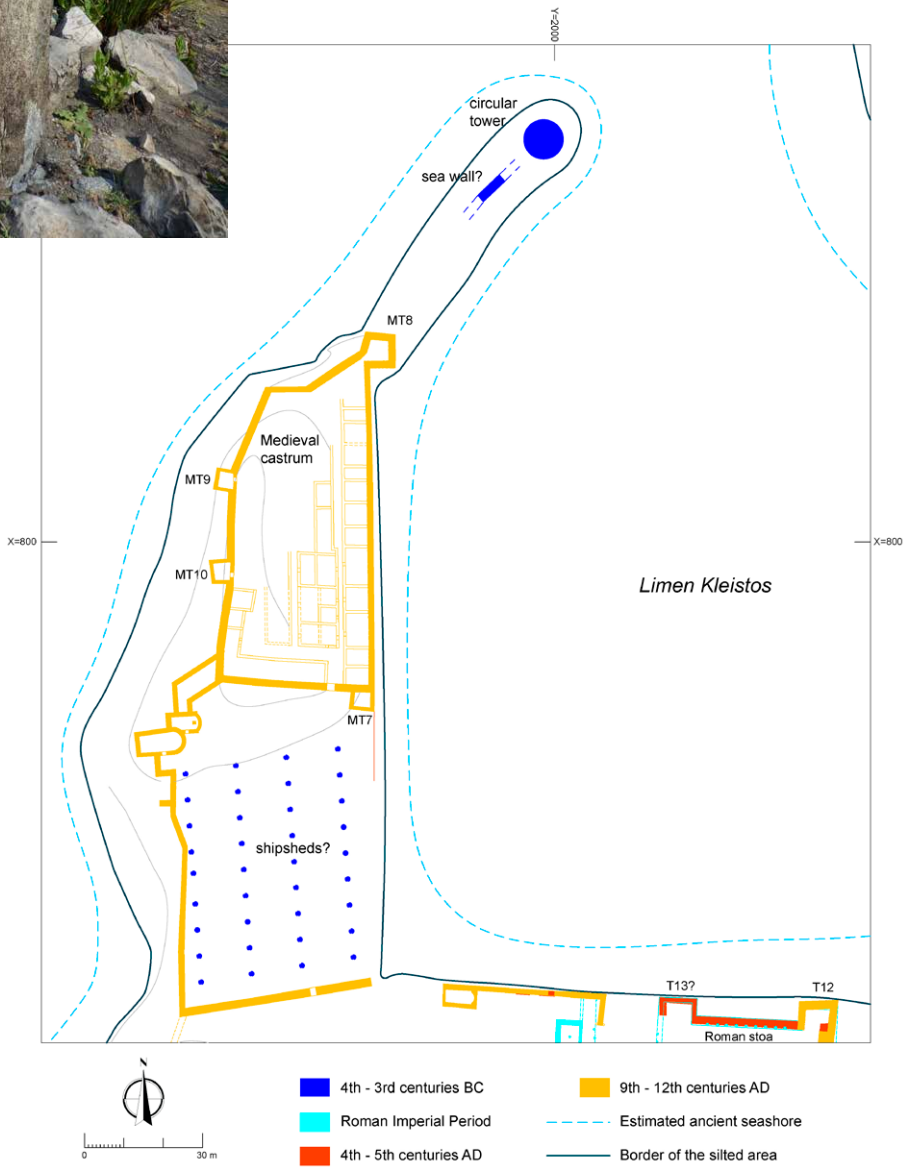

Figure 16. Reconstructed plan of the setting of the columns of the suggested shipsheds (@ Patara Excavation Archive).

area (Fig. 16).[5] In this context, the adjacent rectangular spaces in the medieval Byzantine castrum (see below) are remarkable (Fig. 4, 14). It can perhaps be suggested, from their orthogonal plans, that these stand over an earlier construction (maybe shipsheds) having a similar layout. Another noteworthy point is the layout of the north wall of the medieval city: it runs exactly parallel to the axis formed by the columns of these suggested shipsheds. The question remains whether this medieval wall re-uses a wall (a *diateichisma* or the south wall of the suggested shipsheds) for its foundation. As is known, ancient military harbours or the parts of the harbours in which military structures were located, were separated from the other parts of the city (Baika, 2013). This separation was either through the construction of a wall (*diateichisma*) or due to the topography. In this respect, it would not have been difficult to separate the promontory that forms the northern border of the inner harbour from the other parts of Patara. Besides, the promontory seems to be the most suitable place for such a military purpose, being easily separated from the rest of the city by a wall.[6]

If the suggestions made above are correct – that is, if these column shafts indicate shipsheds, it seems most probable that they were built in the Hellenistic period.[7] In this case, it can be argued that a seawall was needed to protect the shipsheds belonging to a naval base on the promontory and that it would have been first constructed at the same time. Future excavations should provide us with firm evidence concerning these matters.

Late Antique and Byzantine periods (4th and 9-11th centuries CE)

During the long period of the *Pax Romana*, until approximately 250 CE, the colossal Roman Empire did not need defensive walls for those cities lying far from the outer perimeters of the empire. Most likely, the walls that had been constructed were over time weakened due to a lack of maintenance and natural disasters, then served as stone quarries of ready-made blocks for new constructions in this period. Similarly, along the Mediterranean coast, where maritime trade thrived and developed, countless harbours no longer needed expensive defensive fortification systems, unlike in the Hellenistic period, and thus old sea fortifications shared a fate similar to the city walls.[8] We know that defensive city walls began to be constructed again in the mid 3rd century CE, notably in Athens and Rome. Many cities in Asia Minor began to be surrounded by walls constructed from re-used material. What about the harbours? Unfortunately, both the written sources and archaeological data regarding this issue are rather poor (Schmidts, 2019).

Almost all of the building remains visible today in the inner harbour of Patara date from the Middle Ages (Fig. 4). It is known that Patara was converted into a naval base and reconstructed accordingly in the 10th century CE, when Crete was recaptured by the Roman Empire in 961 CE (Zimmermann, 2016: 70), and then Cyprus in 965 CE. A small area at the south of the inner harbour was encircled and fortified by a wall with at least four towers (Figs 2, 4). And another area on the northern tip of the promontory, with a length of about 150 m and a width of 50 m, was also surrounded by walls with towers. Bruer and Kunze (2010: 87) state that this section on the north tip, with buildings placed according to an orthogonal plan, was a castrum. This castrum, which would have accommodated the soldiers of the Byzantine navy, overlooks both the bay (the commercial harbours) to the west and the inner harbour to the east. The wall is narrower at this point than the medieval city wall, which is 4 m wide on the land side. This suggests, at that time, the perceived danger from the sea was less than that from the land. Given that the castrum was probably used by the navy, it can be suggested that this was sufficient for defensive purposes with, at this time, little possibility of an attack.

Remains from earlier periods, such as the columns of the *stoa* from the Roman period on the southern shore of the inner harbour, or the tower ruins of the Late Antique City Wall may be seen among or under the medieval remains we have described (Fig. 4). Bruer and Kunze managed to follow one of them during their study of the city plan in the 1990s and 2000s: they mention the remains of an older wall under the wall of the castrum mentioned above that could be traced for 14 m (Bruer and Kunze, 2010: 72). However, no photograph, detailed description, or other information about the exact location of the wall was published. Unfortunately, we did not encounter this wall in the work we undertook, but it is not possible to see every part of the area today, as it is buried beneath very dense vegetation. It is hoped that in the future we will be able to obtain more precise data concerning the remains of this wall.

5 Whether the area inclines towards the water or not, has not yet been determined.

6 In addition, to date we have not found any other place in and around Patara which would be more suitable for such a purpose.

7 According to Livy and Polybios, the Roman general Quintus Fabius Labeo burned 50 ships belonging to Antiochus III at the harbour of Patara in the early 2nd century BCE (Liv. 38 39; Plb. 21.46). It is perhaps more plausible to consider that these 50 warships were set on fire not in the sea with their soldiers onboard, but perhaps on the slips in the shipsheds (?).

8 Archaeological surveys show that some military shipsheds were used for commercial purposes during the Roman period (Blackman *et al.*, 1996).



Figure 17. A view of the Late Antique City Wall seen from the east (@ Patara Excavation Archive).

Above, we have briefly mentioned the remains of two structures that formed a part of a harbour 'defence' system that must have been constructed before the 9th-11th century CE Byzantine constructions. The first is the remains of a wall in the northeast about 40 m from the tip of the promontory, which extends on a north-east-southwest axis (Figs 4, 11-14). This wall, termed a *Kaimauer* (quay wall) by Bruer and Kunze (2010: 72), has a length of 7.5 m and width of about 2.4 m.[9] It has been preserved to a height of about 2 m. The wall is disconnected at both ends from the whole structure, and it has no visible connection to the promontory (because of dense reeds). It is double-shelled and was built with large limestone blocks using a technique close to the isodomic system. In elevation, the differences between the block sizes were overcome by using small stones between the joints, to create, as far as possible, a horizontal seating area for the upper row of blocks. In some places, the vertical joints were filled with small stones. It is observed that while the mortar filler of the double-shelled wall mostly contains crushed stones, very large pieces of amorphous limestone were also used. It was also observed that in the broken parts of the wall some of the narrower blocks were used as headers (Fig. 13).

The other remains are located on the same axis about 20 m to the northeast of this wall (Figs 10-11, 14). Because entering this area was rather difficult at the time, Bruer and Kunze assumed that these remains belonged to a wall. Nevertheless, when we carefully investigated it, it became clear that it belonged to a circular structure – to a circular tower – rather than a wall. A part of the filling includes mortar and rubble stones: the outer shell, made up of the ashlar blocks, and four curved limestone blocks can be seen *in situ*. The filler, which contains pieces of pottery or brick, is approximately 2 x 3 m. The three courses of the outer shell, 2.5 m in length and 1.5 m in height, can be seen. The courses are composed of blocks with a height of about 600 mm, a depth of 800 mm and a length of 1-1.4 m. This part of the tower collapsed inwards. Either there was a stairwell here, or the waves carved out this part of the filler, causing it to fall down over time. It is not possible to clarify the situation further without conducting an excavation.

Only the upper surfaces of the outer face of the curved blocks *in situ* are visible. They have a depth of about 0.80 m and a length of 0.80-1.5 m. A calculation based on the existing arc suggests that the remains belonged to a tower with a diameter of about 10 m. It is not clear if there were stairs inside. Perhaps the entrance to the tower was via the wall, using a ladder. Since they are on the same axis, the wall we have described above and this tower would, it seems, have been connected. In consequence, the presence of a seawall (about 60 m long) from the promontory to the northeast and ending in a large tower seems most probable although, unfortunately, the connection of the wall with the land (that is, with the tip of the promontory) has not yet been determined due to the problem presented by the dense vegetation mentioned above. It can be anticipated that this seawall and the tower had a counterpart stretching into the sea

9 Bruer and Kunze also use the term 'Seemauer', meaning seawall; although the terms employed are somewhat ambiguous; they mention that, in the same place the 'Kaimauer' protected the inner harbour and was defensive (Bruer and Kunze, 2010: 72-73). Schmidts (2019) suggests that it must have been defensive.

from the opposite side of the harbour, perhaps from the place where the remains of a Late Antique basilica lie (the so-called harbour basilica, Yurttaş and Çevik, 1992: 240-242, figs 15-17) (Fig. 4). However, no evidence has yet been found to confirm this supposition.

The most important problem concerning this seawall with a circular tower at its end is its date. According to Bruer and Kunze, the structure was built at the same time as the Late Antique City Wall (Bruer and Kunze, 2010: 79-101). Indeed, its building technique can, for instance, be compared with a part of the Late Antique City Wall of Patara (abbreviated as LACW) (Fig. 17), north of 'Nero Bath' by the Agora.[10] The walls have similarities and dissimilarities. In both walls, an isodomic appearance was attempted, with the differences in elevation eliminated by using small, amorphous stones between the blocks. Yet, there are few header blocks in the LACW. Its filler is wider than the shells. A kind of inner wall was built using large tufa blocks in the fill.[11] Most importantly, the reclaimed materials used in the LACW have a heterogeneous appearance, while the blocks employed for the seawall at the harbour display a homogeneous structure.

Bruer and Kunze do not refer to this matter, but the blocks used on the seawall show a very strong morphological resemblance to those of the early Hellenistic fortification wall, as described above (Bruer and Kunze, 2010: 30-32, figs 25, 27, 29; Dündar and Rauh, 2017: 564-565, fig. 57). The early Hellenistic fortification wall, however, does not contain small stones between the blocks. In this case, it seems evident that the seawall was built later, using the blocks from the Hellenistic fortification. But when did this happen? From which part of the early fortification were the blocks taken and brought here? Did they have any relationship with the 14 m of 'early' wall that Bruer and Kunze saw beneath the Byzantine walls? Was there an older wall in this location? As yet, there are no definite answers to these questions, but it is possible to provide some arguments. For instance, a large number of blocks that must have belonged to the early Hellenistic fortification were re-used in the part of the LACW, where the excavation is still in progress (Figs 18-19). Perhaps the reason why almost no trace of the south wing of the early Hellenistic fortification wall has been found is that the last blocks of the Hellenistic fortification that had survived until Late Antiquity were then removed and re-used in the LACW. Several scenarios can be put forward:



Figure 18. The Late Antique City Wall, re-used ashlar blocks from the Hellenistic city wall (@ Patara Excavation Archive).

1. The seawall was constructed from the blocks removed from some part of the Hellenistic land fortification wall during the same period as the construction of the LACW.

2. On the promontory, there was a wall that was built with the same masonry technique and in the same period as the Hellenistic city wall. The blocks of the seawall were taken from this Hellenistic wall during the construction of the LACW.

3. The blocks of a seawall that was built in the same place during the early Hellenistic period and had become partially destroyed after being left to decay, were used again in the same process as the LACW.

4. The seawall was built later than the LACW.

As has been shown, determining when the LACW was built is of great significance in order to date the tower (towers) and the seawall that closes the entrance of the harbour. The LACW has not yet been very clearly dated from the archaeological evidence (ceramics, stratigraphy, and so on).[12] Particularly marked are two different periods in this respect: the 4th or 5th century CE and the 7th century CE (Bruer and Kunze, 2010: 100; Niewöhner, 2010). The general approach is that the Late Antique walls were built for display in the 4th or 5th centuries CE and for defensive purposes in the 7th century CE. Niewöhner

10 The excavation work on this part of LACW is still ongoing. See the publication *Kazı Sonuçları Toplantısı* 42, 2020, forthcoming.

11 However, it is not easy to determine if this difference is due to two or more different workshops.

12 To date we have been able to open only one test trench at the foundation of the LACW. The evaluation of the finds is ongoing, but there are no pottery sherds dating from later than 3rd century CE. In addition, as our numismatist, Savas Dinçer Lenger, informs us, the numismatic finds date from no later than the 4th century CE: for the preliminary reports of this excavation see *Kazı Sonuçları Toplantısı* 42, 2020, forthcoming.

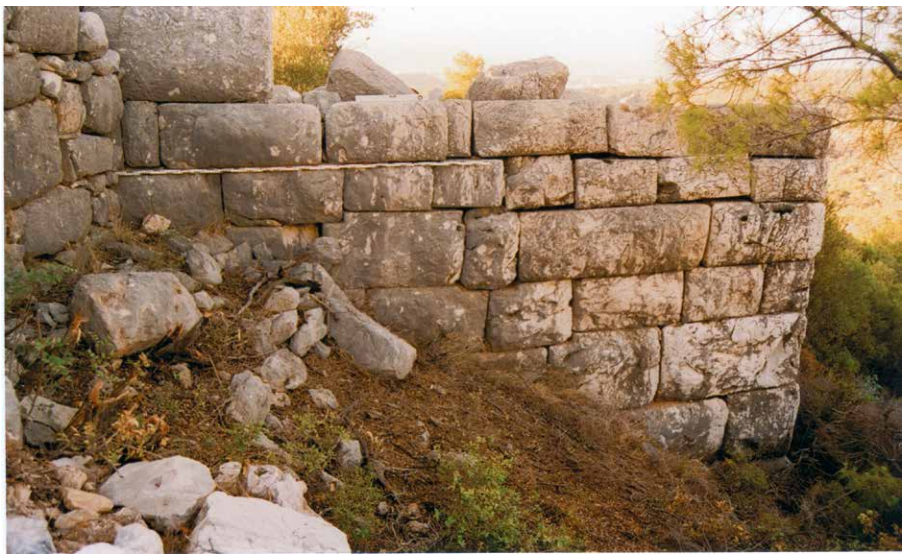

Figure 19. A view of the Hellenistic city wall from Doğucasarı (photo: Stephanie-Gerrit Bruer).

argues that the Pataran LACW was built for defensive purposes and dates it to the 7th century CE (Niewöhner, 2010: 254-257), citing its width – about 2.4 m – and its being 'undecorated' (no flamboyant sculpture was used on the wall and there was no decorated city gate). Although the full assessment of the LACW has not been completed because excavation is ongoing on a part of it, it is possible to mention a few points here. The intensive use of sculpture, for example, the Late Antique City Wall at Aphrodisias, which is very well dated with its building inscription and was clearly oriented towards display, is regarded by Niewöhner as an important criterion (Staebler, 2007; Niewöhner, 2010). Only in one place at Patara has a figure-relief been observed and in very few places have architectural ornaments been found. Patara has no known ornamented gate like those of Aphrodisias or Constantinople. From these facts, the Pataran City Wall cannot be placed in the same category. However, the following factor should not be ignored: when assessed proportionally, the number and types of the sculptural artefacts recovered at Patara, where excavations have been conducted over the past 30 years, is not comparable in any way with those from Aphrodisias. This is no different from Limyra or Xanthos, where excavations have been conducted over a long period: the number of sculptures found in Aphrodisias is probably a few times the number recovered from the whole of Lycia (see Erkoç, 2016). This phenomenon, which should be investigated separately, must have been reflected in the 'embellishment' of the Pataran LACW. So, it would not be the right approach to apply this criterion to every city in the Late Antique world.[13]

Although the Pataran LACW was not decorated with sculptures and reliefs, a strong concern for presentation can be observed. For instance, as Bruer and Kunze noted, this wall does not appear to have been built in haste in response to a threat.[14] On the contrary, in many places, the blocks were laid with care, to establish an isodomic appearance as far as possible (Fig. 20). It is obvious that there was a plan – a plan for display – behind it. For example, the blocks were consistently placed in the same way, so that their undecorated sides face outward. In other words, these features of the LACW follow the tradition of smooth-façade walls of previous periods. In addition, a certain aesthetic was created by plastering the joints (probably using a red plaster) (Fig. 21).[15] That is to say, some effort was also made over presentation for the Pataran LACW.

There is only one known city gate in the LACW (Fig. 22). It is located in the south at the former agora. In comparison with the city gates of Aphrodisas or Constantinople, this gate is very simple and exhibits no decoration. But this side of Patara was not the most significant

13 In the Late Antique city wall of Aphrodisias, lots of sculpture from the necropoleis of the city was re-used. In Aphrodisias and many other cities the Roman period tombs had rich sculptural decoration including reliefs. It was the opposite in Lycia: you can hardly find a tomb building that exhibits any sculpture on its façade. But also in Patara there are lots of other artefacts that were re-used in the LACW, particularly inscribed altars from sepulchral contexts.

14 Bruer and Kunze (2010: 57) see the LACW of Patara in the best tradition of ancient Roman wall construction.

15 The same plastering can be observed on the walls of two Roman bath buildings in Patara.



Figure 20. A view of the Late Antique City Wall (@ Patara Excavation Archive).



Figure 21. Evidence of plastering on the Late Antique City Wall (@ Patara Excavation Archive).

in the Late Antique period since the agora had been demolished and was no longer in use. The important side was definitely the north, the harbour side. Because of this, the 2nd century CE Roman *stoa* on the south side of the inner harbour was not demolished at the time of the construction of LACW, but it was integrated into it (Bruer and Kunze, 2010) (Fig. 4). The front columns of this *stoa* were integrated into the LACW to form a decorative facade with half columns, indicating that the constructors of the LACW had some decorative intent.

In addition, although the LACW of Patara is noted for its width of 2.4 m, one can show many sections and techniques which are not very suitable for defence. For example, in many places, the outer faces were not properly connected with the inner fill (Fig. 23) which could have caused the faces to fall apart in large pieces if under attack. Thus, the width of a wall on its own is a poor indicator that it was constructed to serve a defensive purpose.

From these assessments, we can suggest that the Pataran LACW belongs to Niewöhner's category of 'representative city walls' and can be dated to the 4th or 5th centuries CE (compare with the recently excavated tower (T15) and wall of Late Antiquity on



Figure 22. City Gate in the south part of the Late Antique City Wall (@ Patara Excavation Archive).



Figure 23. A part of the Late Antique City Wall. The ashlar blocks of the outer shell are not truly connected to the filling (@ Patara Excavation Archive).



Figure 24. The Late Antique defence system on Tepecik settlement (@ Patara Excavation Archive).

Tepecik settlement below). However, it is necessary to further explore the criteria mentioned above for this dating, which is presented here as a hypothesis. In this case, it would be correct to date the LACW of Patara with the aid of the finds and those finds discovered in archaeological excavations.

Despite its width, the seawall and its circular tower at the entrance of the inner harbour were an object of prestige representing the strength and wealth of the city. There is no evidence that the seawall and the tower were constructed in haste to face an acute threat. However, at present, this proposition has to remain a research hypothesis based upon the visible archaeological evidence and should be supported or refuted by several studies to be conducted in the near future.[16]

General outpost on Tepecik hill?

The excavations conducted on Tepecik in 2018 have resulted in new and important conclusions concerning the defence of the city and harbour in Late Antiquity. In the excavations carried out in quadrant H-18 at the northwest of the flat area of the hill, the foundations of a tower (T15) (Figs 4, 14) approximately 6 x 5 m in area, with a wall thickness of 700-800 mm, oriented to face northwest-southeast, were identified. The outer face of the wall of T15 employed hammer-faced ashlar blocks and the inner face employed small, irregular stones, quarry-faced and for the most part polygonal and arranged in irregular courses. The coins and pottery found during the excavation show that the tower was built in the 4th-5th centuries CE.[17] The hammer-faced ashlar blocks used for its outer face exhibit similarities with the north wall and the blocks of the bastion located

16 Which naval force in Late Antiquity posed a threat sufficient to necessitate such a defence? The groups of 'barbarian tribes' who came from Europe and disturbed Anatolia and Greece from time to time did not constitute a serious maritime threat. Therefore, we seem to have very many harbour fortification walls from that time. The next serious threat came from the Muslims who attacked the harbour cities of Lycia from the sea from the second half of the 7th century CE into the ... ...11th century CE (Hellenkemper, 1993; Foss, 1994: 2-3, 15). There is a variety of opinions concerning this, as well as the degree of impact of the Muslim raids on the population of the Lycian coasts, and of the earthquakes and endemic and epidemic diseases that led to a dramatic population decline in this period (Duggan, 2004; 2005). It is very possible that the Pataran seawall was re-used in this period. But at the moment we don't have any firm evidence for this suggestion.

17 The latest datable ceramics include grooved ceramic pieces and LR1 amphora handles dated to the 5th century CE. The latest coin finds (Constantin II, Valentinian I, Valens or Valentinian II) from this area are dated to the second half of the 4th century CE. For the preliminary reports of this excavation see *Kazı Sonuçları Toplantısı* 42, 2020.

to the north of the flat area of the Tepecik. Probably, some of the blocks belonging to the north wall and the bastion, which was no longer functioning by the 4th-5th centuries CE, were re-used in the construction of T15.

During the excavations a wall about 22 m in length, extending in an east-west direction, was unearthed approximately 30 m south of T15. The masonry technique for this wall, which is about 700 mm to 1 m wide, used entirely rubble stone, somewhat different from that of the T15. As with T15, it is possible to date this wall to the 4th or 5th centuries CE from the finds obtained during excavation (Figs 4, 24).[18]

This long wall, which surrounds the southern part of the upper plateau of Tepecik, has been exposed for 22 m and found to be connected to another tower or building to the east (T16), square in form and approximately 7.35 x 7 m in area (Figs 4, 24). In this tower, which, like T15, has re-used hammer-faced limestone blocks in the western wall, there is a masonry technique which generally employed mortar as a binder between small rubble stones (Işın and Dündar, 2011: 3).

When we look at these three structures on Tepecik, it is seen that T15 and T16 are connected by the long wall mentioned above. However, this defence system is also connected with T14, which is on the western slope of Tepecik overlooking the east entrance of the harbour (Figs 4, 24). As a result of these excavations, it was established that T14 seems to have been in use from the 6th century BCE to the 5th century CE (Becks, 2011: 5).

The data obtained in the 2018 excavation season showed that the upper plateau of the Tepecik was reorganized (as before the *Pax Romana* was established) and was re-used for defensive purposes in the 4th-5th century CE. These excavations showed that the wall widths and tower dimensions of this defence system, with its three towers and connecting walls between them, are both thinner and smaller than the LACW in the city centre extending to the south of the harbour.[19] However, the defence system on the Tepecik is visible from the guardhouse or tower on Adatepe, east of the Kısık Strait, which connects the northern road to the Xanthos valley via a narrow pass.[20] Its narrow walls mean this Late Antique defensive system, although it dominates the road to the north and the harbour in the west, cannot be interpreted as having been constructed to withstand dangers arriving from the north and it seems reasonable to think from the data concerning the Late Antique defence system, that Tepecik formed an outpost, which allowed observation of the harbour and the road and which was connected by a line of sight to another outpost on Adatepe.

Conclusion

Patara was an important harbour city of the Xanthos valley. It also had an advantageous location in terms of maritime routes and had a well-sheltered outer harbour and an inner harbour (for the possible use of pre-Hellenistic regional harbours, see Keen, 1993a: 71-77; Keen, 1993b). Patara was also the cult centre for the oracle of Apollo, the fame of which spread through the Aegean and Mediterranean worlds from the early 5th century BCE, if not earlier (Hdt.,1182; Koçak, 2016a: 550-557). When combined with the written sources, some of which are given above, the status of the city makes it highly probable that it had a military harbour. Since research on Patara harbour is in its infancy, the attempt has been made to assess some of the visible remains within the above-mentioned framework (the status of the city and the ancient sources).[21] From this evaluation of the ancient sources, Patara's strategic location and the archaeological remains, the following research hypothesis has been established:

1. Patara harbour bay played a dominant role in the emergence of the settlement as the city had no fertile hinterland.

2. From the late 6th century BCE to the early 5th century BCE at the latest, Patara could have been home to the whole or a substantial part of the Lycian navy.

3. The defensive buildings from this early period that protected or controlled the harbour are concentrated on the south-southwest slopes of Tepecik settlement (cyclopean walls, freestanding tower) (the promontory has not yet been excavated).

4. During the late Classical period, under the rule of the Hekatomnids, bastions were constructed on the three

18 The latest datable ceramic and coin finds from the wall are the same as from T15.

19 Wall width in Tepecik averaged 0.70-1 m: in the LACW the average is 2.5 m. The tower size in Tepecik averaged 7.4 x 6.7 m, in the LACW averaged 13 x 9.5 m.

20 The distance between Tepecik and Adatepe is approximately 1750 m. For the guardhouse or tower on Adatepe, see Işık, 2011: 28.

21 In the 1990s, Ertuğ Öner carried out geoarchaeological studies at the harbour of Patara (Öner, 1999). In 2012, Harun Özdaş carried out geophysical prospections (sidescan sonar) in the two remaining ponds from the harbour bay (İşkan and Koçak, 2014). In 2017, geoarchaeological studies commenced again (Johannes Gutenberg University-Mainz and Şeyh Edebali University-Bilecik). The analysis of the core samples taken during these studies is in progress.

hills overlooking the harbour and these played a key role in the defence and control of the harbour.

5. At the end of the 4th century BCE, walls were built surrounding the city of Patara. During this period, the entrance to the inner harbour is likely to have been converted to a *limen kleistos* protected by seawalls and towers.

6. The finding of four column shafts, observed on the promontory, probably indicate the former presence of shipsheds. The early phase of these shipsheds may date from the early Hellenistic period.

7. During the period of the *Pax Romana*, harbour defence became unnecessary. In this period, the shipsheds may have been used for other purposes (possibly as warehouses).

8. In Late Antiquity, a fortification wall was built at Patara and the area of the defended city shrank. The exact date of the construction of this wall is not certain, but it seems possible that it dates from the 4th or 5th centuries CE.

9. It seems probable that the seawall and the tower were built at the harbour entrance in a later period (7th century CE?). It is observed that the blocks dating from the Hellenistic period were re-used at that time.

10. In the 10th and 11th centuries CE, Patara was turned into a naval base once again. A *castrum* was built on the northern end of the promontory. During this period, the seawall and the tower (or towers) may have still been standing and may have continued in use.

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