The ancient port of war, Thasos, Greece

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The island of Thasos is in the northern Aegean Sea, near Thrace, from which it is separated by a narrow strait 8 km wide. To the north of the island, Limenas Bay offers sailors today, as yesterday, a refuge against the often redoubtable seasonal winds and even against the north and north-easterly winds.

In about 680 BC, colonizers from Paros, one of the Cyclades [islands], established a colony on Thasos. The Parians occupied the acropolis of Thasos and the whole island all at the same time, thereby dominating the coastal area of the mainland, then setting up trading posts there.

By the end of the archaic period, their city had grown rich enough to allow the construction of a rampart built of gneiss and marble, with city gates decorated with bas-reliefs, enclosing an urban area of more than 4 km in circumference.

The ancient port opened onto the bay to the west, near the middle of the rampart; it was built seawards as an out-jutting fortification. A description of the vestiges of the closed port of Thasos has been facilitated today by the underwater archaeological investigations conducted between 1984 and 1992 by the Greek Department of Underwater Antiquities, under my direction, and by the French School of Athens, under the direction of J.-Y. Empereur.

The military port of Thasos is situated in the middle of the western part of the ancient city. The basin is protected by a fortification projecting seawards and connected to the city wall. Two gateways provide access to the city on the eastern and western sides, but both gateways (the Char gate, to the east, and the Polemarchos gate, to the west) are outside the

port proper. Nevertheless, each is very close to a seaward projection of the rampart. The plan of the port is quadrilateral, the southwest side of which separates the port area from the city itself

The northern part of the port wall is separate from the city wall to the west of the Char gate and extends in a SE–NW direction (Fig. 1, line A–B) for a distance of 148.6 m. It turns in slightly less than a right angle southwestwards for about 45 m (Fig. 1, line B–C). This wall, which is quite close to the Char gate and about 3 m wide, is connected to the city wall at right angles and, at its start, its dimension can be compared to that of the city wall.

They are identical, with huge blocks of embossed marble, and are typical of the construction at the beginning of the 5th century BC. The presence of a modern jetty

right on top of the ancient walls does not allow a direct view, but the alignment of the

ancient wall is beyond doubt.

Along the line B–C, it has proved possible to map a part of the fortification that remains intact beneath the modern jetty. Here it can be seen, at shallow depth in the sea, that the conserved part of the wall, of 3 m width, is made up of two faces of roughly hewn schist plates, with filling between them. Here we are in the foundations; the marble wall elevation has disappeared.

The line H–G (Fig. 1) is straight from the gateway near the Museum (the Polemarchos or 'maritime' gate). It starts at H and is connected to the city wall. The wall's structure along H–G can be seen at H, but even better so to the north-west of the port basin, in front of the modern quay.

The facing towards the middle of the basin is rectilinear and made up of huge embossed marble blocks superposed in regular rows and clearly identical with those of the rampart (between the bastions) at the beginning of the

5th century BC. Behind the facing is a rubblework of small stones. Certain blocks penetrate more deeply, as foundation stones, at fairly regular intervals of about 2 m. A sample excavation showed that the height of the above-mentioned facing, resting on six marble foundation stones, was 2.13 m.

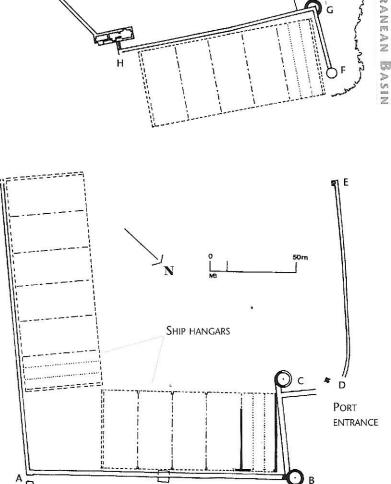
The section F–G (Fig. 1), which turns back towards the north-east for 31 m is partly covered by the modern jetty. Between D and F (Fig. 1), the fortification there at the beginning of the 5th century has been lost. The excavations that have been carried out have, in particular, provided us with information on an early Christian city. In the present situation, dating from the mid-19th century (AD), the port entrance, 55 km wide, is situated between the red harbour light (to the left on entering at E) and the green harbour light (to the right on entering at F). Then, between D and E, the modern mole describes a curve (D-E) about 115 m long, then continues in a straight line, after a bend, for 35 m between C and D. This alignment goes back to the early era, as the excavations have shown. The present entrance therefore has every chance of being the same as was used in the early Christian era.

This entrance has been deepened and dredged in modern times, to the extent that the investigation between E and F has revealed nothing new about the ancient city. Between C and D, the present mole has an early Christian foundation, but in this section we are quite sure that no more ancient structure ever existed.

Between D and E, the traces of an ancient city, repeatedly occupied by palaeochristians, have been found only at E. It comprises blocks arranged in alternation either in a diamond-like pattern or crosswise [only one end exposed]. These blocks are joined in an original manner. On the adjoining surfaces, dovetail slots have been cut out and then filled with molten lead. The dating of this construction could not be determined during the investigations, but it is unlikely to be younger than the 4th-3rd centuries BC, and could be even older. In any case, this foundation roughly follows the alignment of the mole D-E of the early Christian then modern eras.

It is probable that the closed port of the 5th century BC was, since the beginning, closed on this side by the extension of the fortification G-F. It is quite likely that the line D-F was closed by a continuous fortification that obstructed the present passage and extended roughly beneath the present mole. The ancient entrance would have been at the northern corner between C and D following a layout the details of which escape us. If this hypothesis is accepted, the plan of the port, from the very beginning, was that of a closed port, designated precisely by Scylax as 'κλειστος λιμην'. This expression clearly evokes a fortified military port with access reserved to naval vessels that harboured there. The ship hangars [$v \in \omega \rho \iota \alpha$] are to be expected in a naval port. They were, in effect, essential to the ancient naval vessels, from the 6th century BC onwards, up to Roman times. The even foundation defined in the plan is that of a

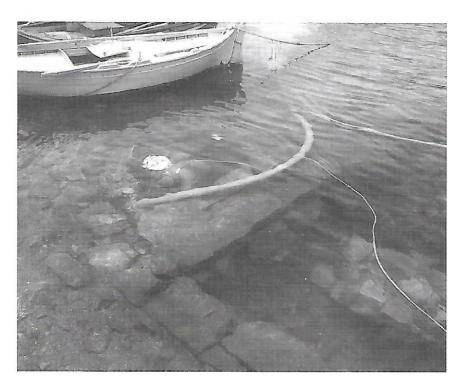
Figure 1. Arrangement of the ship hangars in the closed port of Thasos, identified by J. Y. Empereur and A. Simossi, and verified by F. Salviat. Drawing by M. Borely based on the designs of Nikos Lianos and T. Koselj.



corner of a hangar in service in the mid-5th century BC (Fig. 2).

The north side has a foundation 40 m long and 1.1 m wide. It contains a double wall made of flat schist blocks of regular form. At the end of this wall, no change of angle is evident: it is a wall end. The length of the wall to the east is 20 m and it continues a further 2 m towards the south-east. All this construction is identical. Another wall, also with an identical structure, goes towards the west. Here again, large schist blocks, up to 2 m across, are employed. These blocks are knotched at regular intervals on their loadbearing surfaces to improve their grip. The undisputable link in this layout defines a plan that suggests a building covering a considerable surface with several juxtaposed cells. Here we have the elements of a rectangular cell 44 m \times 20 m, approximately, and part of a neighbouring cell immediately to the south. These cells open onto the port basin. The obvious interpretation is that these are juxtaposed ship hangars. Their length corresponds acceptably to that of a trireme, the hull of which was about 36 m long, and which would have been dragged from the water into the hangar. The width of the cells would have allowed each cell to take three vessels (beam width about 6 m each). Within

Figure 2. Excavation in the port area: remains of the ship hangars; see A, B and C in Figure 1.



each cell, it would have been necessary to have rows of supports for the hangar roof, separating the ramps up which the ships were dragged.

At greater depth there is another foundation, made of irregular blocks of schist in a double-walled structure; these vestiges date from the beginning of the 5th century BC.

Historical sources establish the existence of a Thasian fleet at the end of the 6th century BC. The texts show that Thasos had a well equipped navy of considerable size. At the surrender to Cimon's forces in 463 BC, the Thasian navy was able to sustain a loss of 33 triremes in naval combat, yet still be strong enough to sustain a prolonged siege. It is obvious that the loss of 33 vessels did not constitute the whole of Thasos' naval forces; in any case, she kept some reserves in her arsenals. A total of 50 triremes, as a standing navy, kept in the ship hangars of the closed port, seems an acceptable hypothesis. It seems possible to reconstitute a group of hangars along the wall A–B (Fig. 3). This group could have extended over 100 m for 15 triremes (5 groups of 3). Also, along the wall G-H, over a distance of 100 m, one could reconstitute a similar number of hangars for 15 triremes (also 5 groups of 3); this would amount to 30 triremes. To get to 50, another set of hangars must be imagined; they could have been at the end of the port between H and A. The elevations could be reconstituted, with continuous covers, forming a saw-tooth roof the slope of which, towards the interior of the port, would follow the slopes of the slide ramps on which the vessels were moved. A double-sloped roof for each group of 3 triremes could be imagined (two roof surfaces covering about 20 m wall to wall).

The ramparts of the 6th and 5th centuries BC, with their massive high defensive walls, provided sufficient defence so long as the art of the siege remained little developed. Progress in the design of catapults, ballistas and battering rams led the engineers of the 4th century BC to imagine even more complex protection and to construct counter-batteries in the existing fortifications. With this, the number of towers grew quickly.

The city walls of Thasos therefore underwent improvements in response to new siege

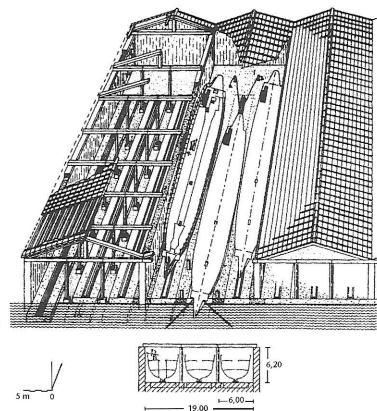
strategy. They took the form of the square towers built inland and were erected against the city walls between existing archaic bastions.

It was also natural that the port fortifications should change, by the addition of new structures better adapted to resisting the new forms of attack. The machines that, on land, could smash city walls, were just as effective when mounted on heavy vessels or lashed to two hulls side by side. It was at this time, at the end of the 4th century BC, that the fortifications of the closed port of Thasos, designed in the 5th century BC, were reinforced with round towers.

We know of three of them, at B, C, and G. Only the tower at G was known before we started our archaeological investigations. This tower had on one of the facing stones of its walls an inscription in large letters mentioning the name of the person who had financed the construction: 'Herakleodoros, son of Aristonikos of Olynthe, the city's official host to visitors, has consecrated the tower, the forum and the statue to all the gods, using funds from the deposit he had entrusted to Archedemos, son of Histieos.' The date of the tower is given by the inscription. It is after the taking of Olynthe by the Macedonians in 348 BC. The date of the construction of the tower was probably at the end of the 4th century BC; this is confirmed by the findings from the sample excavations of the foundation. The central part of the tower had a filling of stones and that it was probably full, at least up to the top of the rampart against which it was built. The diameter of the tower at its base was only 8 m, hence it was a less massive construction than the towers at B and C (Fig. 1).

The towers B and C, with an average diameter of 10 m, were only loosely fixed to the ramparts and were certainly hollow, with floors equipped to contain catapults and with a platform for ballistas.

They were adapted for the defence of the port and had the same strength as the square towers (9 m wide) of the city enclosure on the landward side. The existence of the tower at C can only be explained if the entrance to the port was between C and D. The date of the towers at B and C is ascribable to the end of



the 4th century BC, by reason of the filling in

their foundations.

Outside the closed port, in the vicinity of the angle at G, an external construction pushing the embankment northwards has been observed. It forms a support made of blocks of marble and schist side by side in two rows covering a width of 2 m. The line of this artificial embankment follows a sinuous path from a point near the green harbour light at F to the vicinity of the tower at G; then it becomes more or less straight towards the south-east, parallel to the rampart G-H. There was clearly a land enclosure on the edge of the rampart G-H facing the 'maritime' gate.

There stood the ancient edifice of Soteira who was probably a goddess of protection for the port; and farther to the north, a piece of land recovered from the sea could have borne other constructions. The dedication of Herakleodoros to all the gods, which was mentioned above, and the tower at G, evoke a forum and a statue, which could have had their place on the artificial promontory constructed here.

Figure 3. Reconstitution of the ship hangars in the ancient closed port of Thasos.

By M. Borely.