

## THE TRIREME (Scratch Model)

Irrefutably, the Greek warship in antiquity that would be conducive to the historical and cultural continuation of Western Civilisation following the battle of Salamis in 480 B.C. would be the Trireme.<sup>1</sup>

According to Thucydides, it was the Corinthian builder Ameinocles who constructed the first four Triremes in 704 B.C.<sup>2</sup>

Naturally, the accomplishment of such a remarkable oared ship was the addition and alteration of the oarsmen's seating, through the enhancement of the length and width of the ships of that era.

The Trireme's length was between 36 to 44m, where it was classified as a large vessel in comparison with the circular cargo ships, and its width was between 4.40m to 4.60m according to historians' calculations, as the Triremes have been studied for the past one hundred years or so.

Importantly, Ameinocles during the Trireme's reign was preoccupied overwhelmingly with the addition of a third level of oarsmen called (thranites) which he eagerly constructed, adding narrow protruding decks on each side, widening the Trireme's abeam approximately 3ft.

Historical accounts indicate that there were three levels of oarsmen, which comprised 27 Thalamites, 29 Zigitas and 31 Thranites on each side of the vessel, being arranged in such a clever way within the hull that, Thalamites occupied the bottom level towards the centreline of the vessel, with the Zigitas being situated slightly higher towards the external side of the vessel, while the Thranites inhabited the highest level, adjacent to the side of the ship; all being paid between 1 to 1.5 drachmas per day.<sup>3</sup>

Naval protocol stipulated that the Triremes had to be two masted, with a large and a small one, comprised of a sail on each mast, of which the sail would only be used during favourable weather.

Undoubtedly, the Trireme was synonymous with the notion of innovation for its time, as it provided revolutionary techniques of warfare such as the **embolus** (rastra or ram) constructed of brass, which was a unique piece of armament attached to the bow of the waterline for the sole purpose of crashing into enemy ships and sinking them. Of course, the ramming on the side of the enemy ship was so intense that the **embolus** (ram) would often become stuck, or at times break, if the 174 oarsmen who were paid and not slaves,<sup>4</sup> were not prepared to swiftly, in a fraction of seconds in fact, as a unified body, reverse the vessel.

Evidently, the detachment of the collision was made easy with the assistance of the **paremvoli** (polled ball stopper, attached to the bow above the ram), which prevented the whole body of the ram from being inserted into the hull of the opposing ship, thereby saving the Trireme from being sunk with its foe.

<sup>1</sup> "Herodotus 8: 48", 378 Greek ships, "The Athenian Trireme: the History and Reconstruction of an Ancient Greek Warship", J.S. Morrison, 2000: p.56-57, Ency. "Elefteroudakis V. (11) p.294", 1,200 Persian ships.

<sup>2</sup> "Thucydides" (The Hellenes), KAKTOS 1.13.

<sup>3</sup> "Thucydides" (The Hellenes), KAKTOS 1.30-31-143 6.31 7.29.

<sup>4</sup> "Thucydides" (The Hellenes), KAKTOS 1.30-31-143 6.31 7.29.

Interestingly, the Trireme was able to carry between 30 to 50 privateers, with the number being increased by the oarsmen as participant privateers also, during battles.<sup>5</sup>

Importantly, the Triremes did not possess any top decks prior to the battle of Salamis, and as a result of the injuries sustained by the Persian arrows; they deemed it necessary for the construction of top decks to provide protection.

In addition to the armament of the ram, there were also several others, with the following three out of a number, being defined:

**Delfines:** lead counter-weights in a shape of a dolphin, attached to constructed small side masts, which were dropped onto the opposing ship's deck from a height of about 4-5m in order to hole it for sinking.<sup>6</sup>

**Epotides:** Two wooden long poles, 4-5m in length with pointy brass heads usually in the shape of cones, attached to both sides of the bow, for the purpose of ramming enemy ships' bows.<sup>7</sup>

**Iron Hooks:** Hooks for grabbing and stopping enemy ships.<sup>8</sup>

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<sup>5</sup> "Thucydides" (The Hellenes), KAKTOS 1.28-57 2.56 6.43 8.32.

<sup>6</sup> "Thucydides" (The Hellenes), KAKTOS 7.41.

<sup>7</sup> "Thucydides" (The Hellenes), KAKTOS 7.34-36.

<sup>8</sup> "Thucydides" (The Hellenes), KAKTOS 1.121 4.25 7.62 7.65.