

ARMIES AND NAVIES

Lecture 6: The Polyreme

Evolution in the Fourth Century

- ▣ We have seen how there were changes and evolution in the tactics used by triremes in the course of the fifth century, mainly in order to give the ability to the less experienced sailors to defeat the superior experience of Athens.
- ▣ The evolution in naval warfare continued in the fourth century, albeit in another direction: the construction of polyremes.

The Polyreme Issue

- ▣ The shape of a polyreme is a matter of debate.
- ▣ It is impossible for a ship with 10 tiers of rowers to be seaworthy: it would be too tall and thus capsize easily.
- ▣ It is most probable that these names of ships refer to rowers per vertical position.
- ▣ This would also explain the name of the trireme.

Names and Rowers

- ▣ Essentially that means that a trireme has three rowers per vertical position (vertical line of oars), a tetreres four, a penteres five and so on.
- ▣ The question then remains as to how many tiers of rowers a polyreme had.
- ▣ Various answers for the different ships have been suggested by scholars, however in general terms the polyremes had no more than three tiers.

A Suggestion

Penteconter



Bireme



Trireme



Quadrireme (A)



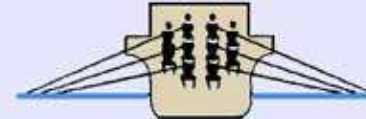
Quadrireme (B)



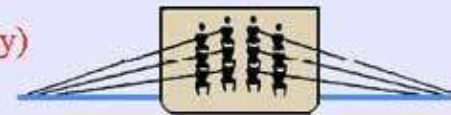
Quadrireme (C)



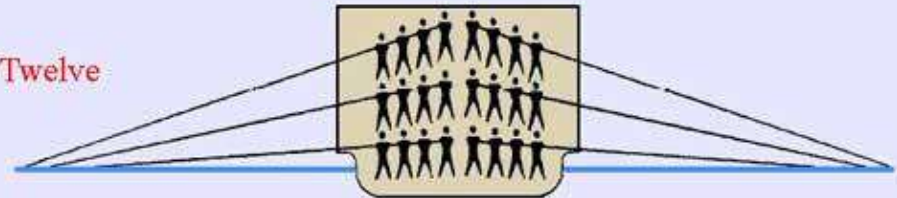
Quinquereme



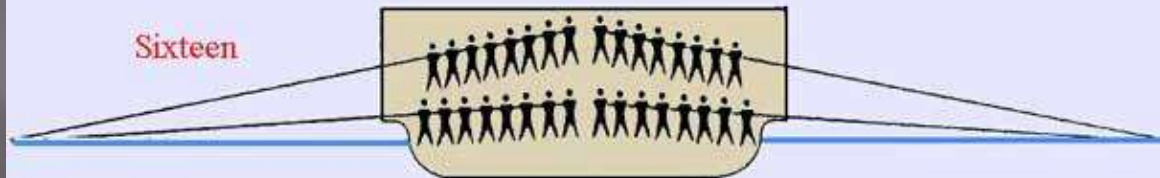
Six (early)



Twelve



Sixteen



The Invention

- ▣ According to Damastes, the Erythræi were the first to construct vessels with two banks of oars; according to Thucydides, Aminocles, the Corinthian, first constructed them with three banks of oars; according to Aristotle, the Carthaginians, those with four banks; according to Mnesigiton, the people of Salamis, those with five banks; and, according to Xenagoras, the Syracusans, those with six; those above six, as far as ten, Mnesigiton says were first constructed by Alexander the Great. From Philostephanus, we learn that Ptolemy Soter made them as high as twelve banks; Demetrius, the son of Antigonus, with fifteen; Ptolemy Philadelphus, with thirty; and Ptolemy Philopater, who was surnamed Tryphon, with forty. Pliny *Natural History* 7.56

Dionysios I and the polyremes

- ▣ For, hearing that triremes had first been built in Corinth, he was intent, in his city that had been settled by a colony from there, on increasing the scale of naval construction. 4 After obtaining leave to transport timber from Italy he dispatched half of his woodmen to Mount Aetnê, on which there were heavy stands at that time of both excellent fir and pine, while the other half he dispatched to Italy, where he got ready teams to convey the timber to the sea, as well as boats and crews to bring the worked wood speedily to Syracuse. 5 When Dionysius had collected an adequate supply of wood, he began at one and the same time to build more than two hundred ships and to refit the one hundred and ten he already had; and he also constructed about the Great Harbour, as it is now called, one hundred and sixty costly ship-sheds, and repaired the one hundred and fifty which were already there. Diodoros 14.42

The Spread of Polyremes

- ▣ Following the example of these states, the Greeks who inhabited the sea-coast of Asia Minor dispatched six thousand men, making the total number of Greeks who served as allies ten thousand. Before their arrival the Persian King, after he had traversed Syria p361 and reached Phoenicia, encamped not far from Sidon. 5 As for the Sidonians, while the King had been slow to move, they attended assiduously to the preparation of food, armour, and missiles. Likewise they had encompassed their city with huge triple ditches and constructions of lofty walls. 6 They had also an ample number of citizen soldiers well trained in exercises and hard work and of superior bodily condition and strength. In wealth and in other resources the city far excelled the other cities of Phoenicia and, most important of all, it had more than a hundred triremes and quinqueremes. Diodoros 16.44

The Spread of Polyremes

- ▣ In the Assembly at Athens, while the men of property were advising that no action be taken and the demagogues were rousing the people and urging them to prosecute the war vigorously, those who preferred war and were accustomed to make their living from paid military service were far superior in numbers. These were the men of whom Philip once said that war was peace and peace was war for them. Straightway, then, the orators gave shape to the wishes of the commons by writing a decree to the effect that the people should assume responsibility for the common freedom of the Greeks and liberate the cities that were subject to garrisons; that they should prepare forty quadriremes and two hundred triremes; that all Athenians up to the age of forty should be enrolled; that three tribes should guard Attica, and that the other seven should be ready for campaigns beyond the frontiers; that envoys should be sent to visit the Greek cities and tell them that formerly the Athenian people, convinced that all Greece was the common fatherland of the Greeks, had fought by sea great those barbarians who had invaded Greece to enslave her, and that now too Athens believed it necessary to risk lives and money and ships in defence of the common safety of the Greeks. Diodoros 18.10

The Spread of Polyremes: Athens

- ▣ Total 360. Of these at sea: 32. Of these three horse-carriers, the demos has decided were unusable in ware. We handed over 43 tetrereis in the shipyards and 7 pentereis. Tetrereis at sea: 7. IG II² 1629.801-12

Why change to the
polyreme?

The Rower Problems

- ▣ The ambassadors thanked him, and urged him to make the wage of each sailor an Attic drachma a day, explaining that if this were made the rate, the sailors of the Athenian fleet would desert their ships, and hence he would spend less money. [5] He replied that their plan was a good one, but that it was not possible for him to act contrary to the King's instructions; besides, the original compact ran in this way, that the King should give thirty minae per month to each ship, whatever number of ships the Lacedaemonians might wish to maintain. [6] Lysander accordingly dropped the matter for the moment; but after dinner, when Cyrus drank his health and asked him by what act he could gratify him most, Lysander replied: "By adding an obol to the pay of each sailor." [7] And from this time forth the wage was four obols, whereas it had previously been three. Xenophon *Hellenika* 1.5.4-7

The need for skill

- ▣ The losses which our crews have suffered and still continue to suffer arise from the following causes. Expeditions for fuel and for forage, and the distance from which water has to be fetched, cause our sailors to be cut off by the Syracusan cavalry; the loss of our previous superiority emboldens our slaves to desert; our foreign seamen are impressed by the unexpected appearance of a navy against us, and the strength of the enemy's resistance; such of them as were pressed into the service take the first opportunity of departing to their respective cities; such as were originally seduced by the temptation of high pay, and expected little fighting and large gains, leave us either by desertion to the enemy or by availing themselves of one or other of the various facilities of escape which the magnitude of Sicily affords them. Some even engage in trade themselves and prevail upon the captains to take Hyccaric slaves on board in their place; thus they have ruined the efficiency of our navy. Thucydides 7.13

The Polyreme solution to skill

- ▣ With more than one man per oar, the strength of the stroke is increased and thus the speed and velocity of the ship (to an extent, since the polyremes were heavier).
- ▣ At the same time, only a portion of the crew needed to be experienced rowers, since only one man per oar needed to be skilled. The other simply followed him.

Troops and provisions

- ▣ The trireme carried a complement of only 20 marines.
- ▣ The polyremes had space for larger contingents.
- ▣ The trireme was a shore-hugging ship.
- ▣ The polyremes had greater space for provisions.

A new type of warfare

- ▣ Trireme warfare was based on speed and agility. The objective was to ram as many ships as possible in an engagement.
- ▣ Polyreme warfare was more dependent upon boarding, hand-to-hand fighting and the greater weight of these ships.

The future

- ▣ Although the old trireme debate has been resolved, there are still a number of questions that need to be answered in relation to naval warfare, not only in the classical but also in the Hellenistic period.
- ▣ New discoveries will give the opportunity for gaining more knowledge and understanding better Greek naval warfare.

Questions?

Follow-Up Reading

- ▣ J. S. Morrison 'Athenian Sea-Power in 323/2 BC: Dream and Reality' *The Journal of Hellenic Studies*, Vol. 107, (1987), pp. 88-97 Stable URL: <http://www.jstor.org/stable/630072>
- ▣ Alec Tilley 'Rowing Ancient Warships: Evidence from a Newly-Published Ship-Model' *International Journal of Nautical Archaeology* Volume 36, Issue 2, Pages 293-299 Available from Wiley InterScience <http://www3.interscience.wiley.com/cgi-bin/home>