

ARMIES AND NAVIES

Lecture 4: The Trireme

The bireme

- ▣ Biremes, ie ships with oars at two levels start appearing from the late 8th century onwards.
- ▣ They may be an alternative explanation for Homer's 120 men on a ship.



The invention of the trireme

- ▣ The question of who invented the trireme is a matter of debate.
- ▣ Herodotos mentions that the Pharaoh Necos built triremes at the end of the 7th century in Egypt.
- ▣ There is some evidence that the Phoenicians had triremes earlier.
- ▣ Thus having ceased from the work of the channel, Necos betook himself to waging wars, and triremes were built by him, some for the Northern Sea and others in the Arabian gulf for the Erythraian Sea; and of these the sheds are still to be seen. These ships he used when he needed them; and also on land Necos engaged battle at Magdolos with the Syrians, and conquered them; and after this he took Cadytis, which is a great city of Syria: and the dress which he wore when he made these conquests he dedicated to Apollo, sending it to Branchidai of the Milesians. After this, having reigned in all sixteen years, he brought his life to an end, and handed on the kingdom to Psammis his son. Herodotos 2.159

The Phoenician Triremes

- ▣ On a relief in the palace of Sennacherib (showing events of 701 BC), there are Phoenician ships that may be triremes



First Triremes in Greece

- ▣ Mimnes, you sick aesthete! Why'd ya paint a long snake-thing going up the rear end of our trireme?
- ▣ Hipponax F8, c550 BC
- ▣ It is said that the Corinthians were the first to approach the modern style of naval architecture, and that Corinth was the first place in Hellas where triremes were built; and we have Ameinocles, a Corinthian shipwright, making four ships for the Samians.
Thucydides 1.13

Greek or Phoenician?

- ▣ The possible dates for the Ameinokles mentioned by Thucydides are at the end of the 8th century.
- ▣ These would place these Corinthian triremes at the same time as the earliest representation of the triremes of the Phoenicians on the Nineveh relief.

The beginning of naval warfare

- ▣ Again, the earliest sea-fight in history was between the Corinthians and Corcyraeans; this was about two hundred and sixty years ago, dating from the same time. Thucydides 1.13
- ▣ Thucydides dates this first naval battle c610 BCE.



Aristonothos crater, c675-650 BC.
Probably a naval battle between Greeks
And non-Greeks.

The invention of Ramming

- ▣ Then, since they plundered the property of all their neighbours, the Tyrsenians and Carthaginians made expedition against them by agreement with one another, each with sixty ships. And the Phocaians also manned their vessels, sixty in number, and came to meet the enemy in that which is called the Sardinian sea: and when they encountered one another in the sea-fight the Phocaians won a kind of Cadmean victory, for forty of their ships were destroyed and the remaining twenty were disabled, having had their prows bent aside. Herodotos 1.164 (events c535 BC)

Professionalism, Rowers and the spread of the trireme

- ▣ Triremes were known and used in the archaic period.
- ▣ However, their spread was limited.
- ▣ This was an expensive ship to build and even more expensive to operate.
- ▣ Triremes needed a lot of rowers and thus they had to be financed by a higher authority than a lord or a chieftain.

Building a navy

- ▣ Another opinion too of Themistocles before this one proved the best at the right moment, when the Athenians, having got large sums of money in the public treasury, which had come in to them from the mines which are at Laureion, were intending to share it among themselves, taking each in turn the sum of ten drachmas. Then Themistocles persuaded the Athenians to give up this plan of division and to make for themselves with this money two hundred ships for the war, meaning by that the war with the Eginetans: for this war having arisen proved in fact the salvation of Hellas at that time, by compelling the Athenians to become a naval power. Herodotos 7.144

The Debate

Is a three-level ship
possible?

The problem

- ▣ These seem to be not less speedy than pentecontors though far inferior to ships of the trireme kind, the method of construction of the latter having been forgotten many years ago. Zosimus 5.20 (writing 5th century AD).
- ▣ If the trireme was a ship at three levels, then the tetreres should be at four levels, the penteres at five, etc.

The 40

- ▣ Ptolemy Philopator built [a ship] of forty banks of oars, which had a length of two hundred and eighty cubits, and a height, to the top of her stern, of forty-eight; she was manned by four hundred sailors, who did no rowing, and by four thousand rowers, and besides these she had room, on her gangways and decks, for nearly three thousand men-at-arms. But this ship was merely for show; and since she differed little from a stationary edifice on land, being meant for exhibition and not for use, she was moved only with difficulty and danger. Plutarch *Demetrios* 43.

The Reconstructions

- ▣ There was at least one practical and several theoretical reconstructions of triremes with different levels from the 17th to the 20th centuries.
- ▣ All were essentially unseaworthy.

Space and the Trireme

- ▣ Why is the trireme, fully manned, such a terror to the enemy and a joy to her friends except by reason of her speed through the water? And do not those on board avoid getting in each other's way only if they take their seats in order, swing forward in order, go aboard and go ashore in order?
Xenophon
Oikonomikos 8.
- ▣ The trireme clearly had limited space.
- ▣ It was strictly a fighting ship.
- ▣ Precisely because fitting three levels of oars and still being seaworthy was not easy.

The shipshed evidence

- ▣ Evidence from classical shipsheds, mainly in Athens, was instrumental in reconstructing the three-leveled ship.
- ▣ It showed clearly how long and how wide a trireme had to be.
- ▣ The space in the shipsheds showed that a trireme was 40 meters long and 6 meters wide.

One man – One oar

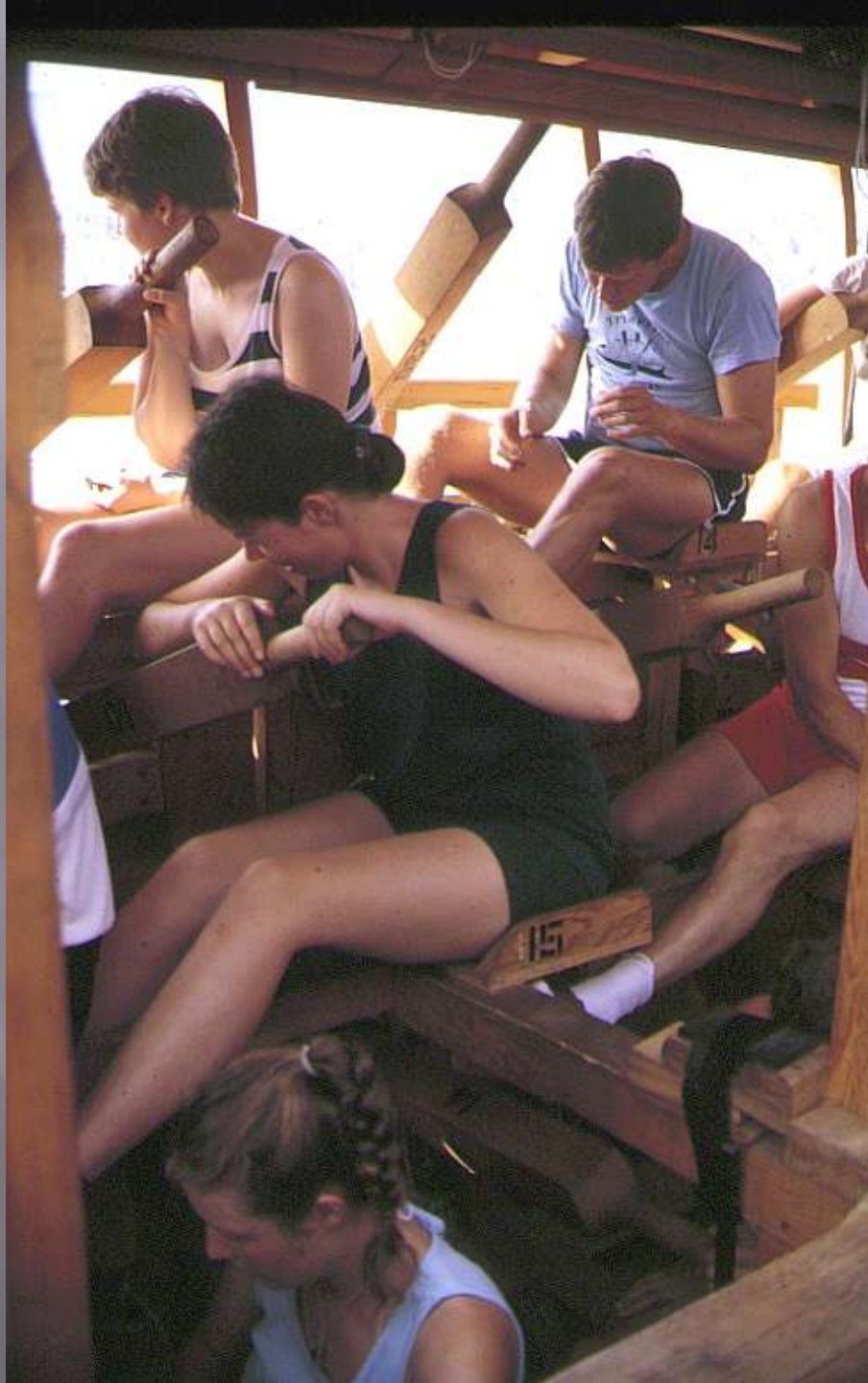
- ▣ Thus the summer ended. Winter was now at hand; but dispersing the fleet, which had retired to Corinth and the Crissaeen Gulf, Cnemus, Brasidas, and the other Peloponnesian captains allowed themselves to be persuaded by the Megarians to make an attempt upon Piraeus, the port of Athens, which from her decided superiority at sea had been naturally left unguarded and open. Their plan was as follows: **The men were each to take their oar, cushion, and rowlock thong, and, going overland from Corinth to the sea on the Athenian side, to get to Megara as quickly as they could, and launching forty vessels, which happened to be in the docks at Nisaea, to sail at once to Piraeus.** Thucydides 2.93

The Reconstruction









Questions?

Follow-Up Reading

- ▣ <http://ay-avebury.soton.ac.uk/Prospectus/CMA/HistShip/Trimen.htm>
- ▣ <http://www.triremetrust.org.uk/>