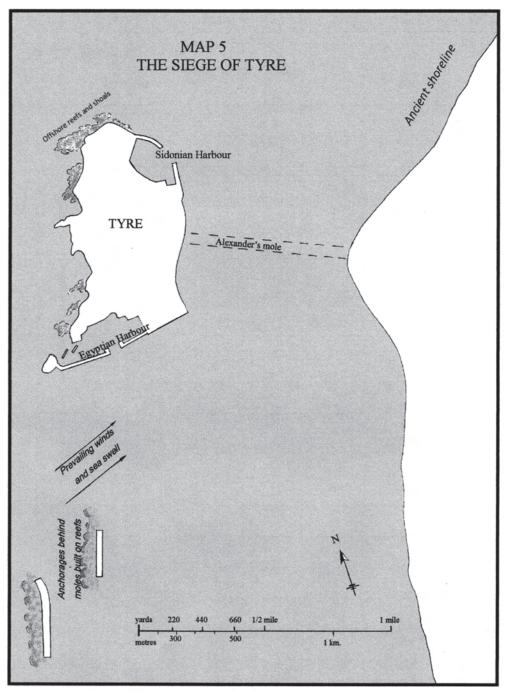
Appendix

The Siege of Tyre 332

332 In January of 332, Alexander laid siege to Tyre, which had refused to submit to him but was too valuable a naval base to be passed and left in the rear. The city would enable the Persian fleet, or what remained of it to have a secure base in which to re-form and reinforce itself and from which to operate along the Levantine coast and further afield thereby denying Alexander secure lines of communication, now even longer and more vulnerable, across the eastern Mediterranean.

At that time, the city of Tyre comprised a lightly protected suburb on the mainland, but the main, significant part of the city occupied an island, about a third of a mile /530m offshore. The island was about 3 miles /5km in circumference and shaped like a hammerhead, each (north and south) arm enclosing a sheltered anchorage and harbour between it and the mainland shore. The outline of the former island of Tyre and its surroundings have changed dramatically since the siege. Originally the island's harbours were built in stone blockwork, the foundations of which include gaps top allow the flow of sea water to keep them from silting. The southern (Egyptian) harbour also had moles placed en échelon at its south-west end, linking with offshore islets, to allow further flushing by the ocean swell, which prevails from that direction. Offshore to the south were two long moles, built into the tops of exposed reefs, to shelter ships waiting beyond the harbours (the reefs and moles have since sunk beneath the waves). The northern (Sidonian) harbour similarly had moles extended over foundations with gaps. The island is now a peninsula, Alexander's mole linking it permanently to the mainland having stopped the flow of the sea and allowing silting and is now nearly half a mile /800m in width in places. Much of the island's remaining coastal outline has been changed, especially on the west, by the effects of the sea swell and by the sinking of the land and/or reefs that maintained it.¹

With a population of approximately 40,000, the island was encircled by strong walls, up to 150 feet /46m high above the water. It had only been captured once, by sea and between 580 and 572, had withstood a siege by Nebuchadnezzar of Babylon for twelve years without falling. The Tyrians had a



Note: the position of the reefs and shoals can only be approximate, as indeed can the western side of the island. Apart from the remains of the masonry of the port installations, the position of the other features as they were at the time of the siege may well have changed over the centuries since, particularly as virtually none of the fortifications have survived, to show their original extent.

navy based at home, of about a dozen triremes, together with at least three fours and three fives and many smaller, all in good fettle and with competent crews. Supplies had always reached the island city by sea and with the limitations of blockades in ancient times, could continue during a siege.

In opening the siege, Alexander set his army to work to construct a mole or causeway to link the mainland to the island and enable the walls to be directly assaulted. The Tyrians were very well supplied with artillery and as soon as the approaching end of Alexander's mole came within range (at about 400 paces) the men working on it were subjected to a barrage of arrows and stone shot from the walls of the city. The water, shallow at first, deepened to about 18 feet /5.5m and thus greater quantities of fill were required and the progress slowed. Even before they came within range of the defenders on the walls, Alexander's men were subject to harrying shooting from Tyrian ships sallying forth and even from raiding parties off the ships.

Alexander had two tall towers of wood, covered with green hides built and mounted his own artillery upon them to counter the enemy artillery. The Tyrians prepared a fireship in their north harbour, a horse transport which they filled with dry wood and any other flammable material that they had as fuel which also added buoyancy in case of holing by the rams of the Macedonian ships. Two masts were fitted forward each with double yards from which were hung cauldrons of flammable oil; high leeboards were placed around the deck to contain even more flammable material, as well as quantities of sulphur and pitch and to protect the crew. The stern was ballasted to counteract the added weight of the masts and to raise the bow so that it would ride up the side of the mole when it hit. Given a favourable wind which blew towards the enemy and to fan the flames, the ship was towed out of harbour by two triremes, one off each bow, with a cable forming a 'V' and so that the fireship could be aimed; when on course, the crew lit the fires, abandoned the fireship and swam back to the city and the triremes 'catapulted' the fireship at its target, dropped their cables and sheered away. The fireship, burning furiously, hit the mole and towers, which were soon burning beyond control; the triremes meanwhile, supported by other warships that had followed them, stood off and added their archery to the artillery shooting from the city picking off the men trying to combat the fires. Many of the Tyrians actually crossed in small boats onto the mole to inflict even more damage to the palisades and artillery pieces there, before eventually being driven off by the Macedonians.

The attack had been an outstanding success and Alexander had to re-think his strategy for the siege. Firstly, he ordered that the seaward end of the mole

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be widened, to increase the front facing the city, to accommodate more towers. He appreciated that this method of attack however, would always give a certain amount of advantage to the defenders in that, by definition, it concentrated the attack on a very narrow front, the width of the mole, enabling the defenders to know exactly where the greatest threat was and concentrate their own efforts and artillery against it. Alexander therefore had to add a naval element to his siege, firstly to prevent a repetition of the recent attack by keeping the Tyrian ships locked in their harbours and secondly to enable him to attack the other, seaward sides of the city.

Alexander took some infantry and light troops and went to Sidon, where the local fleet of fifty ships were complemented by the addition of another thirty from Arados and Byblos, thirteen from Lycia and Cilicia and ten from Rhodes² (which, although independent, had decided to join him); finally the large Cypriot fleet of 120 ships arrived, with one Macedonian penteconter. Alexander now had some 224 triremes and a total of 230 warships of all types, plus his original twenty Athenian triremes and had now therefore almost instantly become the pre-eminent naval power in the Eastern Mediterranean. Not so long before, most of these same ships had been levied to form the greater part of the Persian fleet, the rump of which was still spread in pockets around the Aegean or in Egypt, having now been denied any bases in Anatolia or Phoenicia. Four thousand reinforcements arrived at Sidon from Greece and Alexander put them and his infantry aboard the fleet and sailed, having taken only ten days to prepare the fleet. One could assume that orders for the massing of the ships at Sidon and for their victuals had been sent out prior to Alexander's visit.

The Tyrian navy, although a not inconsiderable force, found any further thought of offensive action to fight the besiegers at sea thwarted, now being totally outmatched by Alexander's new fleet. The Tyrians, having evacuated their women and children, kept within their harbours, blocking the entrances with triremes moored beam to beam with their rams pointed outward. Alexander's fleet immediately attacked the harbour mouths, ramming bowto-bow, and sank three of the Tyrian ships; they could not follow into the harbour however as they would themselves have been trapped and so retired, the Cypriot contingent (commanded by Andromachos) to the beaches on the north and Phoenicians and others to the south side of the mole, each thereby guarding that respective enemy harbour. With a sufficient naval force so close to the enemy harbours, a more complete blockade could now be maintained.

Work to repair and continue the progress of the mole went on and in addition, Alexander's engineers also constructed more siege engines, battering

rams, towers and catapults on some of the transports and older warships which could be moored at will to assault any part of the defences.³ For stability, two ships were fixed together side-by-side to provide broad platforms for large stone-throwing catapults; these were supplemented by wooden housings on the ship's bows, housing bolt-shooting weapons. The enemy had concentrated on reinforcing their defences opposite the mole, the expected point of assault. To discourage Alexander's ships from using their artillery to bombard the other, weaker parts of the walls, the defenders shot fire missiles at them and lobbed rocks into the water to become underwater obstructions to hinder their approach. The ships tried to remove these obstacles but were in turn attacked by heavily armoured Tyrian ships sallying from their harbours, before the blockade ships could intercept. Alexander's men then rigged some small craft with catapults and protection for their crews and stationed them close to the harbour entrances as picket boats, the Tyrians sent swimmers to cut their anchor ropes, which had to be replaced with chains. Obviously sufficient obstacles could not be placed to deny the besieger's ships from the entire circuit of the defences and they remained largely able to pick their point of attack.

The Tyrians resolved to attempt to weaken the enemy's naval capabilities by a surprise attack on the Cypriot ships while they were still beached. They stretched sails across their north harbour mouth, to mask what was happening inside and waited. After some time, the blockaders relaxed, assuming from the inactivity that the Tyrians were exhausted. As the crews went ashore for their midday meal, the Tyrians raised the sails and their ships issued from the harbour in single file, seven triremes, three fives and three fours; starting silently and gently, they deployed into battle order and increased speed as soon as they were spotted. Taking the Cypriot ships completely unprepared and mostly unmanned, they rammed and sank the three fives (the flagships of the three Cypriot kings) and carried along the shore, cutting the cables of the other ships, which were moored with their sterns hauled up on the beach, so that the waves and surf caused them to tumble, broach and be damaged. The attack lasted over half an hour and the attackers added to their victims' discomfiture by hurling flaming missiles onto the enemy ships. News of the attack reached Alexander, who was on the south side of the mole, with the Phoenician part of his fleet; he immediately managed to have a five and five triremes manned and started to row around the island to counter-attack the Tyrian ships; the other Phoenician ships were ordered to block the southern harbour as soon as they could be manned, to prevent another sortie. Seeing this, the Tyrians signalled to recall their ships, who were so intent upon their business that despite it

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taking Alexander three quarters of an hour to row around the island, he still managed to catch a five and a four just before they could gain the safety of their harbour, the others having already scrambled inside, the crews of the lost ships managing to escape and swim home.

The defenders could not hope to repeat this success and their defences were increasingly subject to battering by large stone-throwing catapults, both from the mole and from the artillery ships all around the island. They made little impression where the walls were strong, but in the southern seaward sector, they found a weaker part and managed to partly bring it down. An immediate assault was however, thrown back by the well-prepared defenders. Three days later, a full-scale assault was launched, not against the same breach where they were expected, but against a similarly weak stretch of wall nearby, part of which was brought down by a concentrated barrage. The breach was enlarged by further bombardment, then the artillery ships were withdrawn and two ships modified with ramps brought up, packed with assault troops. Other ships came up with them, shooting to keep the defenders down. As a further distraction, two squadrons of triremes attempted to rush the two harbour mouths. The main assault was successful and the Macedonians quickly extended along the walls to either side of the breach as more assault troops poured into the city; the attacks on the harbours were also successful and after a brief final stand, Tyre fell in July 332, after a seven-month siege. Alexander held a grand victory parade and also a naval review; he enslaved most of the population and garrisoned the city.⁴ The Tyrians casualties were said to be 8,000 killed, while the Macedonians lost only twenty in the assault and 400 throughout the siege, figures which seem a little optimistic, considering the spirited defence and the successful offensive.