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ATHENIAN NAVAL POWER BEFORE THEMISTOCLES

Throughout Greek history, sea-borne activities such as trade, travel, and warfare played a vital role in shaping Hellenic civilization. Of all the Greek states, the one which stands out as particularly devoted to maritime life is Athens. Partly, this is due to the surviving literary evidence, which is oriented strongly towards Athens. Other Greeks, however, recognized the superiority of Athenian skills at sea.[1] This Athenian naval reputation resulted largely from the role played by the Athenian fleet in the defeat of the Persians at Salamis in 480 and also from the Athenian maritime empire which enjoyed hegemony in the Aegean following the Persian Wars. Clearly, Athens was the pre-eminent naval power among the Greek states.

Yet, this was not always so. Athens was late in acquiring naval force, and such naval power as she had was second-class in comparison with other Greek states in the late Archaic period. Naturally, all this was changed with the ship-building program of Themistocles in 483. However, in order to fully appreciate the magnitude of the Themistoclean building program it is necessary to examine carefully Athenian naval capabilities and strategic aims prior to 483. Did Athens possess a navy before Themistocles, and if so, what was the nature of this navy? If it is possible to establish the existence of some sort of Athenian navy prior to 483, one would then naturally want to explore the reasons why this naval power was so late in developing.

One major difficulty which can confuse such an inquiry at the outset is one of definition. In a restricted sense, a navy refers to a fleet of ships owned, organized, and directed by the state. It would be a mistake, however, to apply such a narrow definition to Athenian naval power in the Archaic age – even though such a definition might hold true for later Athenian naval developments. All would recognize that Athenian naval power did not spring, as it were, fully armed out of the head of Themistocles. Yet, failure to define clearly what is meant by "the Athenian navy" has resulted in scholars giving vastly different dates for its inception, most often ranging from the mid-eight century down to the time of the Themistoclean building program.[2] As shall be shown,

[1] Speech of Procles the Phliasian in Xen. *Hell.* 7.1.3.–4.

[2] An eighth century date, Gudrun Ahlberg, *Fighting on Land and Sea in Greek Geometric Art, Skrifter Utgivna av Svenska Institutet i Athen* 4.16 (Stockholm, 1971), p. 58; A. Andrews, "The Growth of the Athenian State," in John Boardman and N. G. L. Hammond, eds., *The Cambridge Ancient History* Vol. 3.3, 2nd ed. (Cambridge: Cambridge University Press, 1982), p. 372; late seventh century, Rudi Thomsen, *Eisphora* (Copenhagen: Gyldendalske Boghandel, 1964), p. 123; early sixth century, M. Amit, *Athens and the Sea: A Study in Athenian Sea-Power, Collection Latomus* vol. 74 (Brussells, 1965), pp. 60–61, cf. p. 105; late sixth century, Borimir

the majority of these answers are correct in a certain sense, and refer to specific periods of growth in Athenian naval power – a more inclusive term than "navy" and one which will be employed in the following discussion.

The source materials available for the historical reconstruction of Athenian naval power before 483 present further obstacles in understanding this period. These primary sources are diverse, often contradictory, and in particular instances are tantalizingly scarce. There is a variety of archaeological material, the most abundant consisting of the depictions of ships, seafaring, and naval warfare found on Attic vases ranging in date from the late Geometric period (last half of the eight century) down into the fifth century. It should be noted at this point that the single greatest difficulty surrounding this material is that of interpretation. It is an often-neglected truism that archaeological sources are mute. Consequently, it comes as no surprise that the pottery sources have produced numerous and contradictory interpretations, ones which have a direct bearing on an analysis of early Athenian naval power. Moreover, it is unfortunate that the burgeoning field of underwater archaeology offers us so little, as the wrecks which have been examined are primarily merchantmen and not warships.[3] Yet even these wrecks provide important information regarding ship construction and trade routes.[4]

The literary sources present a mine of information for investigating naval activity during this period. These sources are two-fold: the writings of contemporary authors, primarily the lyric poets; and later accounts by fifth and fourth century historians, lexicographers, and political philosophers. G. S. Kirk has aptly pointed out that scholars, in their analysis of ancient ships, customarily employ either the literary evidence or the archaeological material and deny any merit to the class of evidence not favored.[5] Surely such an approach yields, at best, a one-sided picture of the issue being addressed. This

Jordan, *The Athenian Navy in the Classical Period, University of California Publications: Classical Studies* vol. 13 (Berkeley and Los Angeles, 1975), pp. 6–7; no earlier than Themistocles, Ulrich Kahrstedt, *Staatsgebiet und Staatsangehörige in Athen* (Stuttgart: Verlag W. Kohlhammer, 1934), pp. 246–248; Jules Labarbe, *La Loi Navale de Thémistocle, Bibliothèque de la Faculté de Philosophie et Lettres de l'Université de Liège* Fascicule 143 (Paris, 1957), p. 43.

[3] The earliest being a late Bronze Age merchantman, see G. F. Bass, "Cape Gelidonya: A Bronze Age Shipwreck," *Transactions of the American Philological Society* new series, 57.8 (Philadelphia, 1967); the most informative being a 4th century wreck off Cyprus, see Michael L. Katzev, "The Kyrenis Ship", in G. F. Bass, ed., *A History of Seafaring Based on Underwater Archaeology* (London: Thames and Hudson, 1972), pp. 50–52.

[4] For a perceptive discussion of the benefits and limitations of underwater archaeology, see Lucien Basch, "Ancient Wrecks and the Archaeology of Ships," *International Journal of Nautical Archaeology and Underwater Exploration* 1 (1972): 1–58, especially pp. 50-53.

[5] G. S. Kirk, "Ships on Geometric Vases," *Annual of the British School at Athens* 44 (1949), p. 139.

propensity for bias has been remedied somewhat in recent years, but more work of a synthetic nature clearly needs to be done along these lines.[6]

One further line of inquiry which may be explored profitably is the study of later Athenian institutions and naval developments which, when viewed as the outworkings or remnants of earlier institutions, may provide information about naval activities prior to Themistocles. However, caution must be urged at every step since such attempts at "reading backward" are notorious for the way in which they serve a scholar's particular point of view and also for the way in which they project back into an earlier period anachronisms and sudden developments. This is especially true with regard to pre-fifth century naval activity in Athens, since the two later examples most often cited, the institution of the naucraries and the so-called Themistocles Decree, present problems in and of themselves, and at best, serve as a controversial basis for exploring previous developments.

The evidence for Athenian naval power during the early portion of the Archaic period is extremely fragmentary and has given rise to a good deal of discussion regarding its usefulness for historical reconstruction. The earliest literary references to Athenian maritime activity occur in the so-called "Catalogue of Ships" in the *Iliad* and in the various legends concerning the travels of the Athenian hero, Theseus.[7] These literary allusions, however, hardly provide the sort of undisputed foundation upon which one can build an analysis of Athenian naval power in the Archaic Age. Similarly, depictions of sea-battles on Geometric pottery, especially on the spectacular Attic Dipylon vases from the mid-eighth century, lend themselves to a variety of conflicting interpretations.[8] This is due to the stylized nature of these depictions and the impossibility of determining the vase painters' motivation for choosing these particular scenes. Consequently, while acknowledging that these ship depic-

[6] Among the better, more recent efforts see J. S. Morrison and R. T. Williams, *Greek Oared Ships* (Cambridge: Cambridge University Press, 1968), hereafter cited as *GOS*; and Lionel Casson, *Ships and Seamanship in the Ancient World* (Princeton: Princeton University Press, 1971).

[7] *Il.* 2.545–556; Plut. *Vit. Thes.* 17-23, 35; Apollod. *Epit.* 5–10. For a discussion of these passages and of the problems connected with them see R. Hope Simpson and J. F. Lazenby, *The Catalogue of the Ships in Homer's Iliad* (Oxford: Clarendon Press, 1970), pp. 56–60, 161–162; W. R. Conner, "Theseus in Classical Athens," in A. G. Ward, *The Quest for Theseus* (London: Pall Mall Press, 1970), pp. 143–174.

[8] Two opposing scholarly views have emerged over the years; one which argues that the vase paintings depict contemporary events, and another which contends that the scenes harken back to episodes from myth and epic. Refer to contemporary events: Ahlberg, p. 58, 69; J. N. Coldstream, *Greek Geometric Pottery* (London: Methuen, 1968), p. 351–361; G. M. A. Richter, "Two Colossal Athenian Geometric or 'Dipylon' Vases in the Metropolitan Museum of Art," *American Journal of Archaeology* 19 (1915): 385–397; The heroic saga school: F. Chamoux, "L'École de la grande amphore du Dipylon," *Revue Archéologique* 23–24 (1945): 55–97; T. B. L. Webster, "Homer and Attic Geometric Vases," *Annual of the British School at Athens* 50 (1955): 38–50.

tions attest to the interest that nautical activities held for the vase painters (as well as for their patrons), it should be recognized that they yield little specific evidence regarding the early growth of the Athenian navy.

As one moves into the seventh century the literary and archaeological sources become more plentiful, and a more vivid picture of maritime life around the Aegean emerges. The elegists and lyric poets of this era depict a world in which many individuals (including themselves) crossed the seas to trade, travel or fight in foreign armies.[9] Nautical imagery is even applied to activities which are quite land-oriented, the most notable being Alcaeus' description of the state as a storm-tossed ship at sea.[10] Yet, apart from a few precious fragments of Solon and Alcaeus, virtually nothing is mentioned which has a direct bearing on Athenian naval power. The pottery evidence likewise becomes more abundant across the seventh and sixth centuries and is informative in several respects. It is possible to trace the increased production and exchange of ceramic goods throughout the Archaic period, a development which testifies to an upsurge in maritime activity.[11] An even more relevant aspect of this Archaic pottery is the fact that as vase painting matures it becomes far easier to follow the development of naval technology and eventually to be able to distinguish various types of sea-going vessels.[12] For as the Attic painters of black-figured pottery perfected their art, a heightened sense of naturalism and an ability to render more detailed subjects make their depictions of ships a valuable source of information regarding the naval capabilities of Athens.

In order to appreciate the extent and nature of these naval capabilities it is necessary first to trace briefly the development of the warship across this period. This can be done, on the basis of both the literary evidence and the vase paintings. In Homer, the warship served much the same purpose as the chariot – a vehicle by which troops could be transported to and from the scene of a battle. It should be noted that sea-borne engagements between warring vessels do not occur in the epics. This is doubtless an archaizing item in the poems, since sometime after 1000 B. C. an element was introduced which revolutionized naval warfare and technology – the ram. This development, which can be traced from depictions on pottery, transformed the warship from

[9] Archilochos frs. 101, 121, 129, 279, ed., Lasserre; Sappho frs. 43, 103, eds., Lobel and Page; Theognis 1.457-460, 680, 855–856, ed., Diehl.

[10] Alcaeus frs. 6, 73, 306C, ed.,Campbell.

[11] see John Boardman, "The Athenian Pottery Trade," *Expedition* 21.4 (1979): 33–39, where he plots this growth in bar graphs for different areas of the Greek world.

[12] A cautionary note regarding the use of vase paintings (even of red-figured ware) in order to reconstruct a detailed picture of Archaic and Classical ships is found in S. C. Humphreys, "Artists' Mistakes," *International Journal of Nautical Archaeology and Underwater Exploration* 7 (1978): 78–79. See also J. Thurneyssen, "Artists' Mistakes: A Reply", *IJNAUE* 8 (1979): 254.

primarily a "taxi service" or a floating platform for land-styled combat to a weapon of war – a huge oar-powered spear designed to pierce or cripple an enemy vessel. The full potential of this innovation took some time to be realized, as there is no direct evidence for the ram being employed in combat until c. 540 B. C.[13] Then it is mentioned by the poet Hipponax (fl. 540–37), and more importantly, it appears in a discussion of the Phocaeans who are said to have had twenty of their ships ruined after their rams were twisted off during the naval battle of Alalia (c. 535).[14]

The development of the ram effected fundamental changes in the construction of ships during the Archaic period. On the one hand, vessels designed for war were strengthened in the bow area in order to withstand the impact of ramming. It was further recognized that the more power a warship could muster the more formidable a weapon it would become in battle. Thus, more oars were added and extraneous space and weight on board the vessel were kept to a minimum so as to ensure the greatest amount of lightness and speed.[15] On the other hand, individuals engaged in long-range trade realized that they could not hope to compete with such a vessel and still retain enough cargo space to make their voyages profitable. Consequently, the introduction of the ram spurred the development of two quite different ships: a sleek yet powerful warship, and the broader more cumbersome merchantman.

The most profitable way to analyze these various types of vessels, and one which will provide the most insight when employed in an examination of the ships of Archaic Athens, is to view them in terms of their function. As for merchant vessels, it has been said above that they were designed for long voyages for the purpose of profit – or at least for exchange.[16] Consequently, they were constructed in such a way as to allow for large cargoes ranging in size from 70 to 150 tons.[17] They were therefore deep, broad ships oftentimes with a length not much more than twice their width – hence to common name, "round-ship" (στρογγύλη).[18] The merchantman's crew was kept to a minimum, and for the long voyages across open water, sail power was used as

[13] For the prior development of the ram, see *GOS* pp. 7, 12, 14, 37, 95–98; Kirk, "Ships on Geometric Vases," pp. 125–127; Basil Greenhill, *Archaeology of the Boat* (Middletown, Conn: Wesleyan University Press, 1976), pp. 157–158, who posits that a West Greek krater (*GOS* pl. 9) portrays the first pictorial use of the ram in combat.

[14] Hipponax fr. 45; ed., Diehl, which also includes the first literary reference to a trireme; Hdt. 1.166.1–2; the "twisted rams" (ἀπεστράφατο τοὺς ἐμβόλους) probably referring to a bronze covering surounding the wooden ram, cf. Aeschylus *Pers.* 408–409.

[15] Casson, *Ships and Seamanship*, pp. 49–53.

[16] For this distinction, see C. G. Starr, *The Economic and Social Growth of Early Greece: 800–500 BC* (New York: Oxford University Press, 1977), pp. 58–60.

[17] Casson, *Ships and Seamanship*, pp. 171–172.

[18] Hdt. 1.163.1; Thuc. 2.97.1; The Kyrenia wreck measured about 39 ft. long by 16 1/2 ft. broad, Greenhill, *Archaeology of the Boat*, p. 160.

the most efficient way to propel the bulky craft. This type of ship was normally equipped with oars, but they were relatively few in number and were employed mainly going to or from shore and for making headway in the frequent calms of a Mediterranean summer.[19]

The merchantman's opposite, the warhsip, saw its full flowering in the development of the trireme (τριήρης), which probably was first produced sometime late in the seventh century. This was a fast, powerful, highly maneuverable warship which achieved these characteristics by an ingenious method of super-imposing three banks of oars on each side, thereby greatly increasing power while keeping the vessel's length to a minimum.[20] In order to reduce the ship's weight, it was built of a lighter wood which, however, rotted much faster than the normal timber used in ship construction.[21] Therefore, the trireme had to be drawn up on the shore at night. This was done not only so as to keep the hull as dry as possible, but also because there was little room in the cramped vessel either to enable as many as 200 men to sleep comfortably or to allow space for all the provisions necessary for such a large crew.[22] It rode quite low in the water and consequently it was kept relatively close to shore.[23]

[19] Therefore suggesting to Aristotle the analogy of insects which are unable to fly fast although they possess wings, *De motu anim.* 10.15.

[20] The so-called Trireme Question, which has been so hotly debated over the last century is, in fact, a closely-related set of three separate questions: the date of its first appearance, the place of its origin, and the arrangement of its oars.

Date: late seventh or late sixth century? J. A. Davison, "The First Greek Triremes," *Classical Quarterly* 41 (1947): 18–24; Kirk, "Ships on Geometric Vases," pp. 142–143; *GOS* pp. 129–130; J. S. Morrison, "The First Triremes," *Mariners' Mirror* 65.1 (1979). 53–63; see also the perceptive comments of Anthony Snodgrass, *Archaic Greece* (Berkeley and Los Angeles: University of California Press, 1980), pp. 151–154.

Place of origin: a Corinthian invention or one developed by Phoenicians for Pharaoh Necho of the 26th Dynasty? M. Lucien Basch, "Phoenician Oared Ships," *Mariners' Mirror* 55 (1969): 139–162, 227–246; "Trières grecques, phéniciennes et égyptiennes," *Journal of Hellenic Studies* 97 (1977): 1–10; "M. le Professeur Lloyd et les trières: quelques remarques," *Journal of Hellenic Studies* 100 (1980): 198–199; Alan B. Lloyd, "Were Necho's Triremes Phoenician?" *Journal of Hellenic Studies* 95 (1975): 45–61; "M. Basch on Triremes: Some Observations," *Journal of Hellenic Studies* 100 (1980): 195–198.

Arrangement of oars: three rowers on one oar or three superimposed banks of oars? If the latter, what was the arrangement? The following is but a sampling of the literature, most of which contains further bibliography. W. W. Tarn, "The Greek Warhship," *Journal of Hellenic Studies* 25 (1905): 137–156, 204–224; C. G. Starr, "The Ancient Warship," *Classical Philology* 35 (1940): 353–374; J. S. Morrison, "The Greek Trireme," *Mariners' Mirror* 27 (1941): 14–44; Casson, *Ships and Seamanship*, pp. 77–96.

[21] K. de Vries and M. L. Katzev, "Greek, Etruscan and Phoenician Ships and Shipping," in G. Bass, *History of Seafaring*, p. 41.

[22] see especially A. W. Gomme, "A Forgotten Factor in Greek Naval Strategy," *Journal of Hellenic Studies* 53 (1933): 16–24.

[23] Thuc. 2.90.6, where triremes lay so low in the water that they could be boarded easily by soldiers wading out to them.

Although clearly unpracticable for long voyages, the trireme was a formidable weapon when employed in a sea battle. Such a vessel was expensive to build and operate, and fleets of them could only be paid for by large outlays of state funds. Yet by the end of the sixth century many Greek states considered the trireme a worthwhile investment.

Between these two extremes, the round-ship and the trireme, there was another broad class of vessel whose origins appear to be far older than either of the other two, as it pre-dated the sharp division of merchantman from warship. In effect, it incorporated elements of both types. It was relatively long, had some sort of ram, and usually possessed between twenty and fifty oars. On the other hand, it was broad enough to allow for the provisioning of long voyages, and oftentimes relied on its large sail to propel it across the waters of the Greek world. In Homer, we have detailed descriptions of such ships and they are used as swift dispatch boats, raiding vessels, and troop transports.[24] In later sources, these ships are usually referred to by the number of oars they employed, the most common types being the triakonter (τριακόντορος), a thirty-oared ship, and the pentekonter (πεντηκόντορος), a fifty-oared vessel.[25] Aside from their use in long voyages, these ships could also be used in war and it was with this type of vessel that the Phocaeans fought the Carthaginians and Etruscans at Alalia in 535.[26] Thucydides informs us that before the Persian Wars, most of the Greek fleets were made up of pentekonters.[27] Moreover, their swiftness, ability to sail long distances, and fighting potential made these ships especially adapted for piracy.[28] Consequently, this intermediary class of vessel, particularly the pentekonter, proved to be one of the most versatile ships which plied the ancient Mediterranean.

Having examined the basic types of vessels in use during the Archaic Age, especially with regard to their functions, it is possible to assess the naval capabilities and strategic aims of several of the Greek states. For the types of ships they employ will, to a certain extent, reflect the naval policies of these states. An analysis of two representative naval powers contemporary with

[24] These ships also lack the ram, an obvious anachronism which Homer carefully avoids. For a discussion with full references, see Casson, *Ships and Seamanship*, pp. 43–48, 59–61; *GOS* pp. 43–67.

[25] Archilochus fr. 51, ed., Diehl; Hdt. 4.148.3.

[26] Hdt. 1.163–166. For the capabilities of these ships as trading vessels, see A. M. Snodgrass, "Heavy freight in Archaic Greece," in P. Garnsey, K. Hopkins and C. R. Whittaker, eds., *Trade in the Ancient Economy* (Berkeley and Los Angeles: University of California Press, 1983), pp. 16–26.

[27] Thuc. 1.14, although this generalization is not always in agreement with the information provided by Herodotus.

[28] Hdt. 3.39.2; see also the comments of Lloyd wherein he compares the pentekonter to the privateering vessels of the eighteenth century, "M. Basch on Triremes: Some Observations," p. 196.

Athens, Corinth and Samos, will demonstrate this relationship between policy and ship types and by comparison will help to illuminate both the scope and the strength of Athenian naval capabilities throughout this period.[29]

In his survey of Greek history before the Persian Wars, Thucydides singles out Corinth as being the first and most powerful of those states which relied upon naval power.[30] He makes it clear that the wealth and power of the Corinthians was based primarily on commerce, which was greatly facilitated by their strategic position at the Isthmus. The construction of the Diolkos across the Isthmus in the late seventh century seemed to exploit this position and served to both encourage trade and enhance the revenues resulting from that trade.[31] Corinth's role as a major emporium in the Greek world was further augmented by a flourishing pottery "industry", whose products dominated the Greek ceramic market during the seventh century. Whether Corinthian merchants themselves carried these popular and finely rendered vases throughout the Mediterranean is another matter. Yet it will be conceded that the manufacture of these vases certainly boosted the local economy.[32] Moreover, the Corinthians showed an interest in overseas ventures, evidenced by the founding of some half dozen colonies scattered across the Greek world. These colonizing efforts were undertaken throughout the Archaic period, ranging from the early foundation of Syracuse (c. 733) down to that of Potidaea during the tyranny of Periander.[33]

Trade, colonization, and manufacture all attest to Corinth's commercial importance and international outlook. Consequently, it is not surprising that these concerns are reflected by the early growth of Corinthian naval power. Even during the eighth century, depictions of ships which appear to be Corinthian are seen on late Geometric Attic vases.[34] As befitting a state interested in fostering trade, Thucydides states that Corinth's early fleet was acquired primarily in order to clear the surrounding seas of pirates.[35] The naval

[29] The compilation of Thalassocracy Lists appears to have been a popular endeavor of Hellenistic scholars. Such lists vary in their worth and, in the main, I shall instead follow Thucydides. See A. R. Burn, *The Lyric Age of Greece* (London: Edward Arnold, 1960), pp. 58, 64.

[30] Thuc. 1.13.2.

[31] R. M. Cook, "Archaic Greek Trade: Three Conjectures," *Journal of Hellenic Studies* 99 (1979): 152–155.

[32] On trade and prosperity in Corinth see, L. G. Siegel, "Corinthian Trade in the Ninth through Sixth Centuries BC," (Ph. D. dissertation, Yale University, 1978); Carl Roebuck, "Some Aspects of Urbanization in Corinth," *Hesperia* 41 (1972): 96–127.

[33] A. J. Graham, "The Colonial Expansion of Greece," in John Boardman and N. G. L. Hammond, eds., *The Cambridge Ancient History* Vol. 3.3, 2nd ed. (Cambridge: Cambridge University Press, 1982), pp. 160–162.

[34] *GOS*, p. 34; see also Henri Tréziny, "Navires Attiques et Navires Corinthiens à la Fin du VIIIe Siècle," *Mélanges d'Archéologie et d'Histoire de l'École Française de Rome* 92 (1980): 17–34.

[35] Thuc. 1.13.5.

policies of the Corinthians also took on a decidedly military aspect, and we are told that strife with Corcyra resulted in a sea battle c. 664 B. C.[36] As is well known, conflict between Corinth and her colonies seems to have been perennial, and continued well into the fifth century. It is in this militaristic atmosphere that the Corinthians are said to have been the first state in Hellas to have constructed triremes – a formidable weapon of war with an exclusively military function.[37] Corinth's naval power in the Greek world was widely recognized, and the fact that the Athenians purchased twenty ships from them to use in their war against Aegina in the early fifth century strikingly illustrates both the naval capabilities of the Corinthians and the relative weakness of the Athenians.[38] Furthermore, the reputation of Corinthian naval prowess was such that a Corinthian shipwright named Ameinocles was commissioned to construct ships for a growing power across the Aegean – Samos.[39]

Samos, especially during the tyranny of Polycrates (c. 540–523 B. C.), represents a very different type of maritime power. Herodotus devotes a great deal of space to Samian affairs and thus we are particularly well informed concerning the naval power enjoyed by Polycrates. This use of naval force so impressed Herodotus that he states, "Polycrates was the first Greek to aim at the mastery of the sea (θαλασσοκρατέειν) . . . and he had great hope of making himself master of Ionia and the Islands."[40] However, Polycrates did not come into this short-lived naval hegemony all at once. Rather, he very carefully developed his maritime power throughout his tyranny and even adapted his naval forces to meet different objectives.

At the beginning of his career as tyrant, Polycrates is described as possessing a fleet of one hundred pentekonters.[41] Given our previous analysis of the functions and capabilities of the pentekonter, it comes as no surprise that Polycrates is depicted as little more than a glorified pirate chief. Herodotus paints a vivid portrait of his non-discriminatory piratical activities by which "he harried all men alike," and began capturing "many of the islands and many of the mainland cities too."[42] Eventually, his more powerful neighbors united

[36] Thuc. 1.13.4.

[37] Thuc. 1.13.2.

[38] Hdt. 6.89.

[39] Thuc. 1.13.3.

[40] Hdt. 3.122. On this portion of Herodotus' narrative see B. M. Mitchell, "Herodotus and Samos," *Journal of Hellenic Studies* 95 (1975): 75–91; J. S. Evans, "Herodotus and the Ionian Revolt," *Historia* 25 (1976): 31-37; Renate Tölle-Kastenbein, *Herodot und Samos* (Bochum. Duris Verlag, 1976). More general studies on Samos, J. Barron, "The Sixth Century Tyranny at Samos," *Classical Quarterly* new series 14 (1964): 210–229; R. Tölle-Kastenbein, *Die antike Stadt Samos*, (Mainz: Deutsches Archäologisches Institut Athen, 1969).

[41] Hdt. 3.39.

[42] Ibid; Thuc. 1.13.6.

against him, but with his fleet of pentekonters he was able to defeat a combined Lesbian and Milesian force in a naval engagement c. 530.[43]

After that point, Polycrates was forced to turn his attention to a growing Persian menace, and this necessitated a subtle change in his naval policy. No longer playing the pirate, he was now one of the two major powers in Ionian waters and he therefore had to plan for the inevitable show-down with the Persians.[44] The harbor at Samos was improved, being enclosed by a great mole which Herodotus describes as one of "the three greatest works to be seen in any Greek land."[45] Herodotus also tells us that Polycrates constructed shipsheds (νεώσοικοι) which were in all likelihood designed for the vessels he was building for the coming conflict – triremes.[46] These were needed because the Persians themselves were slowly gathering a fleet, founded on a nucleus of similarly built Phoenician triremes.[47] Although Polycrates personally preferred to sail in a pentekonter, towards the end of his tyranny he acquired a large fleet of triremes; so many in fact that he could afford to expel his political opponents by sending them off in forty triremes.[48] The long-expected battle with the Persians failed to occur, however, since Polycrates was ignobly captured and crucified by Oroetes.[49] Nevertheless, his career plainly demonstrates the relationship between naval policy and the types of vessels employed to carry out that policy.

This discussion of Polycrates' piratical activities should not conjure up popular images of piracy associated with the buccaneers of the Spanish Main. For in the ancient world, there was often a fine line between piracy, warfare, and trade.[50] The booty acquired through piracy normally had to be sold, making the pirate also a trader. Moreover, piratical depredations often took the form of low-level warfare, as conflicting states would employ private vessels to harass the shipping and coastlines of the opponent.[51] Nor was piracy regarded

[43] Hdt. 3.39.

[44] At the same time, however, he tended to vacillate in his policy towards the Persians. Hdt. 3.44.

[45] Hdt. 3.60.

[46] Hdt. 3.45. It will be remembered that triremes need to be kept as dry as possible.

[47] Hdt. 3.136, 2.159.

[48] These disaffected Samians later returned, unsuccessfully attacking Polycrates, and were assisted in their attempt by a large amphibious force of Spartans – the archetypical land power! Hdt. 3.44–48. The Spartans employed naval power on several occasions during this period, and exhibited a strategic versatility which belies many of the stereotypes about the Spartans found in recent studies. On this aspect of Spartan military capabilities see Raphael Sealey, "Die spartanische Nauarchie," *Klio* 58.2 (1976): 335–358.

[49] Hdt. 3.120–125.

[50] For a full discussion with references see Henry A. Ormerod, *Piracy in the Ancient World* (Liverpool. University Press, 1924), especially pp. 59–74.

[51] Piratical raids committed by the Phocaeans led to the battle of Alalia, Hdt. 1.165. Later examples: Thuc. 2.69.1; 8.35.1–2; 4.9.1. This type of state-supported piracy has long been a

as a base profession in the Archaic period since "this occupation did not yet involve disgrace (αἰσχύνην), but rather conferred something even of glory (δόξης)."[52] Thus, as we come to discuss the growth of Athenian naval power and conflict with other states, it should be borne in mind that naval warfare could take many forms, even that of organized privateering.

The state's use of this kind of piracy indicates that a primary difference between this sort of naval power and that of a formally defined navy revolves around the question of the ownership of vessels so employed. Were these ships owned by traders? fishermen? adventurous aristocrats? These categories can also overlap in this fluid period as is shown by Sostratos of Aegina, a well-known trader who very likely was of an aristocratic background.[53] Further, the widespread diffusion of Attic black-figured ware during the sixth century may lead one to conclude that Athenian vases were transported by a large, wide-ranging merchant fleet owned by Athenians. Yet, such a conclusion is not warranted. Attic vases have been found which bear price markings in a Sicilian dialect and would indicate that Athenian goods were often traded by carriers originating from other Greek states.[54] Moreover, it is not at all certain that trader and ship-owner were one and the same, due to the imprecise nature of commercial terminology at this time and the fact that the expense involved in such voyages often required the combined funds of both ship-owner (ναύκληρος) and trader (ἔμπορος).[55]

One other possible provenance for ship-owners within Athenian society, whose vessels could be used in the naval interests of the state, consists of the aristocracy. Generally, it can be said that aristocrats were primarily interested in land-oriented pursuits. Vase paintings, by and large, depict scenes of athletic contests, symposia or activities concerned with horsemanship. Nevertheless, there is evidence that some Athenian aristocrats expressed an interest in seafaring. These maritime acitivities could take the form of travel to distant lands (Solon), contracting marriage alliances with foreign aristocrats, visiting religious shrines, or traveling to compete in distant pan-Hellenic games.[56] One

characteristic of warfare in Mediterranean waters, see especially Fernand Braudel, *La Méditerranée et le Monde Méditerranéen à l'Époque de Philippe II*, 2nd ed. (Paris: Librairie Armand Colin, 1966), vol. 2, pp. 190–212.

[52] Thuc. 1.5.1.

[53] Hdt. 4.152, where he is given a patronymic. He appears to have dedicated a shrine at Etruscan Gravisca, and may be associated with the ΣΟ amphorae. A. W. Johnstone, "The Rehabilitation of Sostratus," *Parola del Passato* 27 (1972): 416–423; "Trade Marks on Greek Vases," *Greece and Rome* 2nd ser. 21 (1974): 138–152; F. David Harvey, "Sostratos of Aegina," *Parola del Passato* 31 (1976): 206–214.

[54] Starr, *Economic and Social Growth of Early Greece*, pp. 74–75.

[55] Ibid.; Lionel Casson, "Traders and Trading: Classical Athens," *Expedition* 21.4 (1979): 25–32.

[56] S. C. Humphreys, *Anthropology and the Greeks* (London: Routledge and Kegan Paul, 1978), pp. 166–167.

especially notable instance of aristocratic maritime involvement concerns the new temple of Apollo at Delphi, erected by the exiled Alcmaionidai. Not content with facing it in tufa, they imported large quantities of Parian marble, an incredible undertaking which entailed a route of two sea-passages and three portages.[57]

More importantly, certain aristocrats took an interest in the finance and operation of warships. As has been shown, such ships were quite expensive and only the most wealthy could afford them. The fleet that Miltiades took with him to the Thracian Chersonese c. 524 was probably privately owned, and in all likelihood consisted of pentekonters. For triremes with crews of two hundred were normally beyond the resources of private individuals, and the ones which are mentioned seem to be exceptions.[58] Yet it is fortunate that these exceptions are noted in the sources, for they in all probability imply a larger, unrecorded, group of aristocrats possessing less expensive pentekonters. Moreover, it is not unlikely that these aristocrats served the state with their ships, just as their more land-oriented fellows went to war on their own horses.

The notion of the wealthy merchant or aristocratic ship-owner in the service of the state naturally leads one to the hotly-contested question concerning the nature of the naucraries. The literary sources conflict regarding both the name and function of this institution.[59] In some, ναυκραρία denotes an administrative unit or geographical division for the purpose of taxation. Others refer to an individual called a ναύκραρος who appears to have been a state official responsible for the collection of taxes. Pollux, a lexicographer of the second century A. D., states that "each naucrary supplied two knights and a ship; hence its name."[60] This explanation is often seized upon to explain the naucraric institution as one in which a private individual is required to finance a ship for the Athenian navy. While this solution accords well with the later institution of the trierarchy and would establish definitively the nature of the pre-Themistoclean navy, it appears to be one which relies far too heavily on projecting back a later institution into a shadowy past – a procedure replete with methodological difficulties. And although I tend to support this particular interpretation of the naucraric system, I do so on the basis of

[57] Hdt. 5.62.3. Note the pun on poros stone (πωρίνου) and Parian marble (Παρίου). See also Snodgrass, *Archaic Age*, p. 141.

[58] Hdt. 5.47, 8.17.2; Thuc. 6.61.6; Plut. *Vit. Per.* 35.2.

[59] Hdt. 5.71.2; *Ath. Pol.* 8.3, 21.5; Pollux *Onomasticon* 8.108; Kleidemos fr. 8, ed., Jacoby; Androtion fr. 36, ed., Jacoby.

[60] Pollux 8.108. The principal recent discussions may be found in C. Hignett, *A History of the Athenian Constitution to the End of the Fifth Century* (Oxford: Clarendon Press, 1952), pp. 72-73; Thomson, *Eisphora*, pp. 119–146; Amit, *Athens and the Sea*, pp. 103–107; Jordan, *The Athenian Navy*, pp. 5–16.

comparison with other Archaic "navies" and on an analysis of Athenian strategic aims and naval capabilities during this period.[61]

The first thing to be noted concerning Athenian naval power during the late Archaic period is that it should always be examined in the broader context of Athenian foreign policy objectives. All too often, studies of the naval capabilities of Athens before 483 are imbedded within works concerning Athenian naval power throughout antiquity, or are found in general histories of ancient seafaring.

Thucydides states that it was only with the onset of the Persian invasion in 480 that the Athenians "embarked on their ships and so became sailors."[62] Allowing for a certain amount of hyperbole this is a largely accurate summation. Before the Persian Wars, Athenian policy was primarily land-oriented, and while there exist some notable exceptions to this rule, they can be interpreted as only the very beginnings of a nascent maritime policy. We have seen that Athenian naval interests do not necessarily follow from a flourishing pottery trade. Moreover, the oft-stated reliance of Attica on foreign grain rests upon very slim foundations – at least until the fifth century; and even if such grain importations could be established, they could have been carried in the bottoms of foreign vessels.[63] The colonies which were established on both sides of the Hellespont were founded during the sixth century, and a comparison with other states shows Athenian colonial efforts to be both few and belated.

Athenian port facilities provide another means for analyzing naval interests during this period. While Polycrates was building ship-sheds and his great harbor mole, and the Corinthians enjoyed their long established harbor works, Athens relied on the open, indefensible beaches of Phaleron. This was Athens' port until Themistocles began construction works at Piraeus, and it does not even appear to have had sheds for tackle – a feature that well-appointed harbors possess as early as Homer.[64] The exposed position of the beaches at Phaleron laid it open to two serious attacks: in 510 with the first Spartan

[61] Casson draws a useful analogy of the early modern French navy which relied upon chartering private vessels, *Ships and Seamanship*, p. 301 n. 5. Another parallel might be made with the medieval English navy which was financed by tax collections in port areas and/or ship requisitions by "wardens of the ports." This would accord with the Attic coastal deme of Kolias, called a naucrary in a later lexical work (Anecdota Grace 1.275.20, ed., Bekker). Kolias is the only deme so named in the sources. (I owe this suggestion to C. G. Starr).

[62] Thuc. 1.18.2; cf. the similar statement in Hdt. 7.144.

[63] The first mention of grain ships, Hdt. 7.147. See also T. S. Noonan, "The Grain Trade of the Northern Black Sea in Antiquity," *American Journal of Philology* 94 (1973): 231–242.

[64] *Od.* 6.263–272. Ancient references to Phaleron: Paus. 1.1.2; Hdt. 5.81, 6.116; Strabo 9.1.398. See also Joseph W. Shaw, "Greek and Roman Harbourworks," in Bass, *History of Seafaring*, pp. 89–90; John Day, "Cape Colias, Phalerum and the Phaleric Wall," *American Journal of Archaeology* 36 (1932): 1–11.

attempt to overthrow the Pisistratids, and c. 506 when Aegina sent a fleet to ravage the coast.[65]

It is clear that the primary foreign policy objectives of the Athenians during this period consisted of the acquisition and consolidation of border areas on the north and west. Struggles with Megara in the west continued until Pisistratus captured the Megarian city of Nisaea – an event which brought him a great deal of popularity and helped to propel him into power.[66] In the north, Plataea appealed to Athens c. 519 in its struggle against Theban domination. Athens was more than happy to oblige, and only the timely mediation of Corinth prevented a full-scale border war breaking out between Athens and Thebes.[67] Other intermittent border conflicts with Boeotia occurred over the control of Oenoe, a stategically situated town commanding the approaches to the fertile Thriasian Plain.[68] One of the most important episodes in Athens' ongoing border struggles was the combined invasion of Attica in 506 by Spartan, Boeotian and Chalcidian armies. In a series of decisive engagements, these invaders were defeated and Attic borders enjoyed relative security until the Persian invasions.[69]

Thus, the prowess of the Athenian hoplite army was shown to be equal, if not superior, to the forces of powerful neighbors. Moreover, these conflicts emphasize the priority that the Athenians attached to the protection of their all-important arable countryside. It should be noted that until the fifth century, Attica remained a predominantly agricultural community. With this broader context in mind it is possible to examine Athenian naval ventures and determine the scope of naval power in pre-Themistoclean Athens.

The long-standing conflict with Megara over the island of Salamis should probably be seen as another of these border conflicts.[70] Possession of Salamis would ensure dominance over the Bay of Eleusis and would lay open to attack wide tracts of land within each polis. Doubtless, the Athenian state employed ships for its numerous attempts to capture and hold the island.[71] But the fact

[65] Hdt. 5.63, 5.81. It is worth noting that the Spartan invasion was thwarted, *not* at sea, but on the plains near Phaleron by Thessalian cavalry serving Hippias.

[66] Hdt. 1.59.4.

[67] Hdt. 6.108; Thuc. 3.68.

[68] Oenoe was eventually acquired by Attica and fortified, attesting to its strategic importance. Thuc. 2.18.2.

[69] Hdt. 5.74–77.

[70] See A. French, "Solon and the Megarian Question," *Journal of Hellenic Studies* 77 (1957): 238-246; Stewart Oost, "The Megara of Theagenes and Theognis," *Classical Philology* 68 (1973): p. 186; A. Andrews, "The Growth of the Athenian State," *CAH* 3.3^2, pp. 372–374; and particularly, R. P. Legon, *Megara: The Political History of a Greek City-state to 336 BC* (Ithaca, N.Y.: Cornell University Press, 1981), pp. 121–140, for a full discussion with references.

[71] Especially if one accepts the details in Plut. *Vit. Sol.* 8–10. Note that one Athenian attack on Salamis was comprised of fishing boats and one triakonter – a formidable armada!

that the conflict continued throughout the late seventh and early sixth century witnesses to both Athenian naval (or should we say amphibious) weakness, and also to the low priority Athens attached to maritime affairs since possessions of Salamis would be a prerequisite to Athenian naval influence in the Saronic gulf.

Salamis in Megarian hands, however, would not necessarily preclude the dispatch of colonists, such as occurred c. 600 B. C. They could easily have departed from other coastal towns such as Prasiai, especially given their destination – the Hellespont.[72] Athens planted colonies on both sides of the strait and this has often led to speculations concerning the motivation for these colonial ventures. Pontic grain may have been a factor, but the search for other items such as timber might also have prompted the selection of these sites. Yet, we would hesitate to project fifth century objectives back into the late seventh or sixth centuries. Perhaps there was a desire for more or better agricultural land.[73] Or perhaps we should take the word of the Athenians at face value, that they wished to prevent exclusive Aeolian control of the area.[74] In any case, several expeditions were sent which established settlements at Sigeum in the Troad c. 600, at a site across the strait in the Thracian Chersonese c. 560, and on both Imbros and Lemnos c. 500 situated at the approach to the Hellespont. It should be noted that in almost every case the new colonists came into military conflict with their other Greek neighbors.[75]

These early expeditions, and the fighting they entailed, probably required the use of naval forces. However, we are not given any details concerning these ships, and the fighting which is recorded occurs between opposing hoplite armies. It is only with the colonial ventures of Miltiades the Younger c. 516 that we are given an important detail concerning Athenian naval power.

Miltiades "was sent in a trireme to the Chersonese, there to take control of the country, by the sons of Pisistratus."[76] This is the first instance in the sources of an Athenian trireme, and during the early 490's we encounter Miltiades again, this time sailing back to Athens with five triremes.[77] While one might be tempted to regard these vessels as part of an Athenian battle fleet, the

[72] On Prasiai: Paus. 1.31.2; Philochoros, fr. 75, ed. Jacoby.

[73] K. A. S. Dusing, "The Athenians and the North in Archaic Times," (Ph. D. dissertation, University of Cincinnati, 1979), pp. 20–24.

[74] Hdt. 5.94.2.

[75] The earliest being the duel at Sigeum between an Athenian Olympic victor, Phrynon, and Pittacus of Mytilene; Alcaeus fr. 167; ed., Campbell; see also Hdt. 5.94–95; 6.36–41; Strabo 13.1; R. M. Cook, *The Troad: An Archaeological and Topographical Study* (Oxford: Clarendon Press, 1973), pp. 178–188, 363–363.

[76] Hdt. 6.39. A spurious dialogue ascribed to Plato mentions that at about the same time, Hipparchus employed a pentekonter to bring the poet Anacreon to Athens. *Hipparchus* 228c, ed., Joseph Souilhé.

[77] Hdt. 6.41.

wisest course would be to classify them as privately owned ships in the service of aristocratic foreign enterprises.

Another area in the Aegean which received a great deal of attention in the late sixth and early fifth century is the region of the Cyclades. Pisistratus exhibited a great interest in these islands. Shortly after the battle of Pallene he conquered Naxos and handed it over to Lygdamis, a Naxian who had supported him in his quest for power in Athens.[78] Moreover, "at the bidding of the oracles," Pisistratus purified the sacred island of Delos.[79] The reasons for his interest in this area can be only speculative, but one strategic concern might have been to secure allies along the southeastern passage to and from Ionia. Unfortunately, the means by which he carried out these ventures are likewise unknown; did he employ specially constructed triremes and thereby emulate his contemporary, Polycrates? If so, were these "Athenian ships" or his own possessions?

Athenian interest in the Cyclades continued into the fifth century. After Marathon, the wide-ranging Miltiades the Younger induced "the Athenians" to provide him seventy ships with which he unsuccessfully attempted to capture Paros.[80] One would like to know the identity and position of these anonymous "Athenians" as well as more specific information regarding the "ships" (νέας). We are told that the pretext for the attack was Parian treachery – supplying triremes to the Persian fleet at Marathon. If Miltiades were attacking a naval power which possessed triremes, he would certainly have been equipped with similar weaponry.[81] However, all of the fighting is described as having taken place on land, and it may well have been that Miltiades employed pentekonters – the perfect ship to use in a surprise attack, and one which could also carry supplies for a protracted siege.

The most frequently cited example of Athenian naval power before Salamis concerns the squadron of twenty ships sent to aid the Ionian cities in their revolt against Persia in 498.[82] These ships, sent for only one campaigning season, have been variously described owing to a fragment of Charon of Lampsacus in which the ships (νέες) are equated with triremes. This would accord with Herodotus' description of the Ionian fleet at Lade in 494, when after cataloging the different νέες he states, "All these together attained to the number of three hundred and fifty-three τριήρεες."[83] But it will be remembered that by the date of the battle, the Athenian contingent had gone home.

[78] Hdt. 1.64; *Ath. Pol.* 15.3.
[79] Hdt. 1.64; cf. Thuc. 3.104.1–2.
[80] Hdt. 6.132–136.
[81] Jordan's argument, *Athenian Navy*, pp. 25–26.
[82] Hdt. 5.97.
[83] Charon of Lampsacus, in Plut. *de Herodoti malignitate* 24; Hdt. 6.8.

Moreover, Herodotus specifically states that the Athenians "came with their twenty ships (νέας), bringing with them five triremes of the Eretrians."[84] The language Herodotus employs here would suggest that he is drawing a contrast between the composition of the Eretrian fleet and that of the Athenians. Since the Athenians brought as many as twenty ships to Ionian waters, this relatively large fleet (deployed by a state with limited previous maritime ambitions) in all probability consisted of pentekonters, vessels which were less expensive than triremes but still quite serviceable for warfare. This contrast clearly implies that the Athenian ships were *not* triremes, and in all likelihood they consisted of pentekonters.

Why was the Athenian "fleet" still made up of pentekonters when both the Persians and the Ionian states were using the superior trireme? The principal reason seems to be that Athenian strategic aims did not yet require expensive ships with the tactical advantages and limitations of triremes. All of the above-mentioned foreign expeditions were secondary to the more pressing conflict with Aegina, one which had raged since the early sixth century.

The island of Aegina, lacking many natural resources, forced its inhabitants early-on to turn to the sea for their livelihood. In time, the Aeginetians took up trade, and individuals such as Sostratos attest to the vitality of Aeginetian carrying trade. As we have seen, however, there was a fine line trade and piracy in the Archaic Age, and the Aeginetians took up both professions with equal enthusiasm.[85] Unlike Corinth, Aegina was not located at a major geographical crossroad, but its situation in the Saronic gulf afforded the Aeginetians an advantageous position for intercepting long range trade. Thus it was that this maritime neighbor of Athens acquired a well-earned reputation for both trade and piracy.[86]

Consequently, the conflict between Athens and Aegina during the sixth and early fifth centuries took on characteristics of organized piratical raids and coastal depredations.[87] The vicissitudes of this struggle are difficult to follow in the sources, particularly the intermittent references in Herodotus.[88] Some of the incidents in this protracted conflict include: an Aeginetian attack on

[84] Hdt. 5.99.

[85] Hdt. 3.59; 5.83.

[86] For the above discussion, see the perceptive remarks of Thomas Figueira, "Aegina and Athens in the Archaic and Classical Periods: A Socio-Political Investigation," (Ph. D. dissertation, University of Pennsylvania, 1977), pp. 131–134; Figueira's study has recently been published as *Aegina, Monographs in Classical Studies,* edited by W. R. Connor (New York: Ayer Co., 1981).

[87] These may even be the origins for the coastal raids depicted on earlier vases during the Geometric period. Catalogued in Ahlberg, *Fighting on Land and Sea,* 44, see also pp. 58, 69.

[88] 5.84–89; 6.88–92; 7.144. The major scholarly attempts to disentangle these events are A. Andrews, "Athens and Aegina: 510–480 B.C.," *Annual of the British School at Athens* 37 (1936–7): 1–7; N. G. L. Hammond, "Studies in Greek Chronology of the Sixth and Fifth Centuries BC," *Historia* 4 (1955): 371–412; L. H. Jeffery, "The Campaign between Athens and

Phaleron and the Paralia region, active Athenian support for raids on Aegina undertaken by a disaffected Aeginetian noble, the Aeginetian capture of an Athenian sacred vessel, and an Athenian attack on the temple of Aphaia.

Given the piratical nature of this conflict, it is no wonder that it was referred to as "heraldless war" (πόλεμος ἀκήρυκτος), that is, a war outside the conventions of normal Greek warfare and diplomacy.[89] Moreover, both sides called in aid from neighboring Greek states, thereby escalating what had been mutual piracy to the level of full-scale war.

A piratical war, however, calls for weapons suited for the particular tactics employed. In the case of this war, it is not surprising that both sides used the archetypical pirate ship, the pentekonter. This elicits a comment from Thucydides that while some powers (notably tyrants) acquired triremes, the fleets of the Athenians and the Aeginetians "were inconsiderable, consisting of fifty-oared galleys (πεντηκοντέρους)."[90] The nature of this long-standing war goes a long way in explaining the composition of the pre-Themistoclean navy. For pentekonters, affordable enough to be owned by private individuals such as merchants and aristocrats, would be the optimum vessel for privateering, an activity useful to the state and profitable to the individual.

As the war escalated, however, both sides sought to tip the balance by employing outside forces and tactics. Aegina called in Argive hoplites and Athens purchased twenty ships (triremes?) from Corinth.[91] This escalation proceeded apace throughout the 480's and this is the context crucial for understanding the enthusiasm which greeted Themistocles' trireme building program in 483.

As we have seen, in order to construct triremes in large quantities, the state had to take the lead due to the vast expense involved. But as events proved, the far-sighted Themistocles was concerned about a much greater threat than Aegina. The revolution which transformed the nature and scope of Athenian naval power in 483 was destined to save Hellas, and in time effected an equally far-ranging transformation of the fabric of Athenian society and politics.

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Aegina in the Years before Salamis," *American Journal of Philology* 83 (1962): 44–54; A. J. Podlecki, "Athens and Aegina," *Historia* 25 (1976): 396–413; Figueira, "Aegina and Athens," pp. 211–272 passim; idem, "Herodotus on the Early Hostilities between Athens and Aegina," forthcoming in *American Journal of Philology* 105 (1984).

[89] Hdt. 5.81. This term has been subject to a wide range of interpretations: Andrews, "Athens and Aegina," pp. 1–2; J. L. Myres, "Akeuruktos Polemos: Hdt. 5.81," *Classical Review* 57 (1943): 66–67; Figueira, "Aegina and Athens," pp. 257–258.

[90] Thuc. 1.14.3.

[91] Hdt. 6.89, 92.