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Coordinating the Athenian Fleet: Cooperation and Common Knowledge

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Greek and Roman Studies

Submitted in partial fulfillment of the requirements for the Bachelor of Arts
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ABSTRACT

Coordinating the Athenian Fleet: Cooperation and Common Knowledge

by

Robert Samuel Mills McArthur

In the fifth century BCE, Athens both developed as a democracy and achieved naval superiority in the Aegean. The state's naval commitment lasted, mostly uninterrupted, until 322 BCE. The fleet, in turn, bolstered Athens' democracy. However, cooperation was not guaranteed. Elites—typically unfavorable to democracy, yet compelled to financially contribute to the navy—often opposed Athens' policies. Challenges of securing manpower and timber further threatened Athens' naval commitment. This thesis, applying Josiah Ober's theory of "knowledge alignment," explores ways that Athens sustained its commitment in spite of these challenges. Alignment strategies to promote cooperative action included public honors and symbolic monumental architecture.

1. Introduction

1.1

From the late 480s to 322 BCE, Athens was both a democracy and a naval power. Athens' direct democratic institutions made naval policy subject to the citizen body and put military power in the hands of those serving as rowers for the state's fleet of triremes. But the naval system was not to everyone's liking; to some elite Athenians, whose interests were in landed wealth and hoplite warfare, the "sea class" could be dismissed as a "naval mob" (ναυτικός ὄχλος).¹ Yet these same elites were called upon to serve as trierarchs. The socio-economic diversity of the fleet exacerbated the potential for strife—rich and poor, slave and free, foreigner and citizen had to work together for the navy to function properly. Moreover, the navy generated logistical hurdles beyond those of a traditional hoplite army: the need for ship-building materials, rowing manpower, skilled sailors, administration to manage resources, and infrastructure. But despite all these challenges, Athens repeatedly promoted pro-naval policies, renewing and even expanding its commitment to sea power in the face of several naval failures, such as those at Sicily and Aigospotami. This raises questions: how did the people of Athens maintain their common interest in naval power? With a shared

¹ Aristotle *Pol.* 1291b24, 1304a22; Thuc. 8.72.2. Strauss 1996: 316 interprets this expression as derogatory.

interest in place, how did the democratic institutions of Athens address logistical hurdles, lacking "command and control mechanisms" to execute policy?

Josiah Ober's theory of Athenian democratic decision-making laid out in *Democracy and Knowledge* (2008) offers a potentially fruitful approach to these questions. Ober identifies three "epistemic processes" which contributed to Athens' success as a democratic *polis*—the aggregation, alignment, and codification of knowledge. Ober's work was praised by reviewers. Kostas Vlassopoulos in the *Classical Review* describes it as "innovative," but he also suggests that Ober's theory needs more "historical testing."² The Athenian fleet, the backbone of its military and a contributor to the development of its democracy, is a compelling test case for an argument about why Athens succeeded as a polis. In his introduction to *War, Democracy and Culture in Classical Athens* (2010), David Pritchard discusses the "symbiosis between democracy and war," noting that the details of this relationship are an "almost entirely neglected question" (1). Thus, I hope that my application of Ober's theory to the fleet is timely. Indeed, as Vlassopoulos asserts in his review, "the value of [Ober's] book should be seen as lying primarily in setting out a new research agenda" (518).

The key concept I borrow from Ober's work is "alignment"—a process "enabling people who prefer similar outcomes to coordinate their actions by

² Vlassopoulos 2009: 517-518. Cf. Allen 2009, Somin 2009.

reference to shared values and a shared body of common knowledge" (27). The problem solved by alignment, Ober writes, is "how a decentralized participatory democracy could have coordinated its many working parts in the absence of formal command and control and without elaborate protocols" (169). Since the navy's success depended on cooperation across a wide socio-economic spectrum—ranging from wealthy trierarchs to hoplite-class marines (ἐπιβάται) to lower-class rowers, and from citizens to foreigners to slaves—there were certainly "many working parts." In applying Ober's theory of alignment to the navy, I need to first show that Athens had a shared value in naval power, and then demonstrate that the state facilitated pro-naval activity through attempts to affect common knowledge.

1.2: Ober's Theory

Ober begins with an assessment of Athenian state performance, trying to establish first that Athens was successful relative to its peer city-states, and second that the political institutions of Athens promoted its success (ch. 2). He spends the rest of the work constructing his theory that it was management of knowledge that made these institutions effective. The argument boils down to three ideas: the aggregation, alignment, and codification of knowledge.

Aggregation is the exchange of knowledge between citizens, leading to democratic decision-making. In the Athenian direct democracy, those with a

voice in government came from varying backgrounds and, consequently, brought different kinds of knowledge to the table. Ober argues that the institutional organization of Athens facilitated the aggregation of relevant knowledge, leading to sound decision-making by the state (ch. 4).

If aggregation explains decision-making, alignment focuses on the execution of a decision. Ober emphasizes the lack of "command-and-control mechanisms" in Athens to enforce coordinated action. This necessitated "institutional support for aligning common knowledge" (168). Ober identifies rituals, monuments, and the following of leaders, rules, and commitments (such as the commitment to fight in a battle) as contributors to knowledge alignment (ch. 5).

The codification of knowledge as laws or decrees "allowed Athenians to lay plans for the future with some confidence, and at the same time encouraged them to think about ways in which their individual and collective circumstances might be improved if the rules were changed" (211). Ober argues that this stability benefitted Athens through lowering transaction costs: "organizations lower transaction costs by regulations that lower the cost to individuals of gaining information... . This is accomplished through imposing rules, including general codes of conduct, standards of value and measurement, and fair mechanisms for dispute resolution" (116).

Lastly, while Ober focuses on the political institutions of Athens, the case of the navy extends beyond the politically enfranchised. Decision making about the navy, of course, was limited to citizens. But when moving from planning to action—from aggregation to alignment—the navy demanded coordination between citizens and non-citizens alike.

2. A Shared Value

Ober considers the role that cultural and ideological forces played within Athenian society. "Within a given community," he writes, "culture and ideology serve (inter alia) as instruments by which individuals are persuaded to make more cooperative choices" (2008: 14). Ideology and culture can also indicate common preferences among citizens, and such preferences are a precondition for alignment. Thus, it is necessary to consider the navy's place in Athenian culture before examining the active strategies the city pursued to promote cooperation.

In fifth-and-fourth-century Athens, a common preference for naval power is evident through the rise of naval values in the ideology and culture of the state. I define this "naval ideology" as a combination of Athens' democratic character, its political values such as freedom and equality,³ its imperial ambitions, and its pursuit of financial gain. Each of these individually was a potent ideological force, yet the navy was a vehicle for pursuing all of them. An

³ Ober 2008: 267: "Athenian democratic culture promoted an ideology grounded in values of freedom, equality, and dignity. It also promoted the critique of democratic failings, thus pushing back against the tendency to ideology rigidity and conformist groupthink." Cf. Ps-Xen. 1.10-12.

individual might have an interest in some but not all of these components—for example, an elite Athenian seeking expansionist foreign policy, but not domestic democratization, would still be engaging with an aspect of naval ideology as he strove to achieve his goals. Thus, creation and maintenance of a strong navy was a shared interest which transcended any of the individual components of political ideology. The fleet also affected the culture of the city outside the scope of its political life, as evident in plays, artistic representations, and the written works of historians and philosophers.

The following examination suggests that a shared value for the navy was firmly in place. But it also acknowledges that the naval ideology had detractors. Challenges of cooperation and logistics had the potential to disrupt Athens' naval ambitions. In order to combat opposition, references to naval values became an effective way for Athens to promote knowledge alignment.

2.1. Rise of an Athenian "Naval Ideology"

By the time of Cleisthenes' democratic reforms in 508 BCE, Athens still had no state-owned navy; this changed in the 480s with the Themistoclean ship-building program (Haas 1985). Themistocles convinced the people to use silver mining revenues to create a fleet of triremes instead of redistributing the wealth among themselves.⁴ This investment would have tremendous consequences for

⁴ Hdt. 7.144, Thuc. 1.14.3, Aristot. *Ath. Pol.* 22.7.

Athens, marking the beginning of naval ideology. Following the naval battle of Salamis in 480, the ideological shift becomes apparent as the Athenians become identified with their fleet. For example, Aristotle, writing in the fourth century, describes them as a "sea class" and a "naval mob" (*Pol.* 1291b24, 1304a22).

The most evident case for observing naval ideology is the evolution of Athens' military policy. From the battle of Salamis until the end of its democracy in 322 BCE, Athens relied heavily on its navy. Herodotus notes the transformation of the Athenians following their ship-building of the 480s: the new triremes "saved Hellas by compelling the Athenians to become seamen (*θαλασσίους*)."⁵ Themistocles convinced the state to rely on its "wooden wall" of ships in the face of Xerxes' invasion; after Thermopylae, the Athenians abandoned their city and took to the sea, staking everything on naval success (*Hdt.* 7.143, 8.40-41). The facility for seafaring which the Athenians developed in the Persian Wars paved the way for increasing reliance on the navy later on. It also represents a striking shift in Athens' perception of what constituted the city. Herodotus reports that, with Athens sacked by the Persians, Adeimantus the Corinthian tries to exclude Themistocles from war-counseling because he has no city. Themistocles replies that "so long as they had two hundred manned ships, the Athenians had both a city and a land greater than theirs" (8.61). He defines

⁵ *Hdt.* 7.144.2. Unless otherwise noted, english translations of Thucydides and Xenophon's *Hellenica* come from the *Landmark* editions, and translations of other texts are from Perseus Digital Library.

the city not as the physical structures of Athens, but as its triremes and the people who man them. Such sentiment is echoed in Aeschylus's 472 BCE *The Persians*: when a messenger brings news of the defeat at Salamis to the Persian queen, she asks if Athens has at least been sacked. The messenger responds: "While she has her men, her defenses are secure" (349). Since Athens in fact was sacked before the battle of Salamis, the messenger, like Themistocles, is defining the city of Athens as the people who man the fleet.

The development of Athens' conception of itself as a sea power continued throughout the fifth century. Thucydides records that Pericles, just before the Peloponnesian War, urged Athens to adopt the same willingness to put fleet ahead of landed property as when they gave up the city to Xerxes. In this case, rather than abandoning the city, Pericles argues for abandoning its countryside territory, defending the walled city, and prosecuting the war with its fleet, exhorting the people to conceptualize themselves as islanders.⁶ After stressing Athens' superior sea power, he states: "Suppose that we were islanders: can you conceive a more impregnable position? Well, this in future should, as far as possible, be our conception of our position. Dismissing all thought of our land and houses, we must vigilantly guard the sea and the city" (Thuc. 1.143.5). This island metaphor was still effective in the fourth century, when Xenophon writes

⁶ Cf. Taylor 2010 analyzing Thucydides' account of Athens' self-definition as a naval power.

that "all the winds of heaven bring to her the goods she needs and bear away her exports, as if she were an island; for she lies between two seas" (*Poroi* 1.7).

Similarly, the battle of Salamis became an ideologically loaded concept in the fifth and fourth centuries. When urging the people to support naval policies, Athenian orators could invoke the sea battle to their advantage during democratic deliberations (a process Ober would categorize as aggregation).

While discussing naval matters in the Assembly, Demosthenes invokes Athens' past by saying: "whenever you have all set your heart on anything ... you have always achieved your aim" (14.15). He later openly refers to the naval victories of the Persian War (14.29). Similarly, the orator Aeschines "read the decrees of Miltiades and Themistocles" in order to rally Athenian support against Philip of Macedon (Dem. 19.303). The decree of Themistocles from Troizen may prove useful here. The question of its relation to the original decree is not relevant to this point; but if the text from Troizen is related to a version from fourth century Athens, it would signal further use of the state's naval past to promote ideology. The text itself contains some ideologically loaded language: for example, it concerns itself with ensuring "that in a spirit of concord (ὁμονοοῦντες) all Athenians will ward off the Barbarian" (44-45). *Homonoia*, the "spirit of concord," was an important social value of democratic Athens. The text also contains language of common knowledge, making provisions "so that they may know"

things (34). Such language will appear again in the inscriptions examined below. Historical allusions could also be effective within microcosms of the deliberative process of the state. When battle looms with a numerically superior Peloponnesian fleet in 429, the Athenian Phormio urges his men to be confident. Reminding his men that smaller—but more skillful and courageous—fleets had often defeated larger ones (Thuc. 2.89.7), Phormio likely had Salamis in mind, and the allusion would not be lost on his audience.

A key development in the period shortly after Salamis was the emergence of the trierarchy—a part of Athens' "liturgy" system of privately-performed public services in which elite citizens would fund triremes. The *Athenaion Politeia* attributed to Aristotle gives an account of the Themistoclean ship-building, and it outlines a sort of proto-trierarchy: "[Themistocles] urged that one talent of money be lent at interest to each of the one hundred richest men of Athens. ... Having obtained the money on these conditions, Themistocles had one hundred triremes built by letting each of the one hundred borrowers build one" (22.7). By making wealthy citizens responsible for triremes, this seems to be a precedent for the trierarchy. Even if one disputes the account, the trierarchic liturgy likely emerged in the late 480s, again pointing to Salamis as a transformative moment (Gabrielsen 30-31, 35).

The emergence of the trierarchy signifies that a shift was occurring not only in Athens' military policy, but in its political ideology. At the same time that the state began to expect substantial financial contributions from elite citizens to maintain the fleet, the democratic institutions of Athens continued to develop to the benefit of the lower classes. The navy was at least partially responsible for this democratization. As Barry Strauss puts it, the navy was necessary to "solidify *demokratia* ... because it generated ideology. The navy educated the thetes in solidarity, equality, and freedom" (Strauss 1996: 320). In fact, the notion of Athenian democracy being linked with its navy originated in ancient Athens itself. Pseudo-Xenophon points out that "it is the people who man the ships and impart strength to the city ... far more than the hoplites, the high-born, and the good men" (2-3). Consequently, he writes, it is fitting for the masses to have a share in governing the state. Aristotle makes a similar observation: "the naval multitude, having been the cause of the victory off Salamis and thereby of the leadership of Athens due to her power at sea, made the democracy stronger" (*Pol.* 1304a 20).

Yet naval ideology encompassed more than just radical democracy. Pro-naval sentiment permeated the ranks of elite Athenians, a social class typically less favorable to democracy and to the trierarchic liturgies imposed upon themselves by the demos. Kimon, for example, opposed democratic reforms yet

was a key figure in Athens' maritime expansion. Such examples can be explained, at least in part, through the incentives of imperialism. In the fifth century Athens used its growing naval power to establish a maritime empire. Imperialism's benefits for Athens extended across classes; rich citizens, poor citizens, and the state as a whole stood to benefit financially from the Athenian empire.⁷

Imperialism and democracy were intertwined in the fifth century, becoming a sort of "vicious circle." Imperial revenues allowed Athens to provide pay (*misthos*) to its citizens for various public functions, and these revenues prompted citizens to pursue increasingly imperialistic policies.⁸ The *Athenaion Politeia* attributed to Aristotle describes the role of *misthos* in the fifth-century empire:

The combined proceeds of the tributes and the taxes and the allies served to feed more than twenty thousand men. For there were six thousand jurymen, one thousand six hundred archers and also one thousand two hundred cavalry, five hundred members of the Council, five hundred guardians of the docks, and also fifty watchmen in the city, as many as seven hundred officials at home and as many as seven hundred abroad; and in addition to these, when later they settled into the war, two thousand five hundred hoplites, twenty guard-ships and other ships conveying the guards to the number of two hundred elected by lot; and furthermore the prytaneum, orphans, and warders of prisoners—for all of these had their maintenance from public funds. (24.3)

⁷ Finley 2008: 25-27 (ed. Low) discusses how the empire promoted "private enrichment" for citizens from both the upper and lower classes through the acquisition of land abroad.

⁸ Cf. Finley 1973: 172-173.

Interestingly, Aristotle does not consider naval *misthos* in this passage beyond some supporting roles such as guardians of the docks. But the navy was a prominent *misthos*-providing institution nevertheless, and thus it incentivized its own existence. In the fourth century, with the empire a thing of the past, Athens' ability to provide *misthos* was hampered, yet it was determined to restore the strength of its navy. By the middle of the century Athens was apparently able to provide pay at a rate of one drachma per day (Gabrielsen 113). During the "Lycurgan Era" of 336-324, state pay returned to an "imperial scale," even though Athens did not regain the empire itself (Burke). Thus, in the fourth century financial incentives, along with the desire to reattain past imperial prestige, would have continued to motivate the people to strengthen the fleet.

One might doubt the extent of naval ideology on the grounds that relatively few naval scenes survive in material culture.⁹ If the navy truly were so influential, wouldn't this be observable through artistic representations? But a closer examination reveals the navy's cultural impact; the promotion of naval values in the decades following the Persian Wars manifests itself in both art and plays of the fifth century. Depictions of *aplastons*—the "curving trireme stern with a standard in front of it"—appear in Athenian art (Neils 153). From ca. 480-460 there are extant five vases, two votive shields, and at least one relief

⁹ Strauss 1996: 320-321 outlines—and offers a response to—this concern.

carving portraying the scene, in which either Athena, Nike, or an unidentified woman holds an *aphlaston*.¹⁰ Many scholars interpret these scenes as a symbol of naval victory.¹¹ Their proliferation after Salamis reveals the battle's impact on culture. The vases could signify the demand of private individuals for naval scenes, while the relief sculpture, which would have accompanied a public document, shows that the influence of Salamis extended to the governing ideology of the state.

Similarly, plays demonstrate the place of the navy within Athenian cultural values. *The Persians* speaks of the Greek naval forces with idealizing words, for example: while moving with "cheerful confidence ... they all pulled their oars together, struck the deep sea-water and made it roar" (394, 396-397). The play also uses technical nautical terminology such oar-loops and thole-pins (376). Thus, Aeschylus assumes that his audience possesses a degree of nautical knowledge—or at least that naval matters would interest them. Several plays of Aristophanes make similar assumptions. One example comes from *Knights*, where the chorus leader personifies a group of triremes as gossiping women (1300-1315). They discuss their opposition to a naval expedition to Carthage which is being proposed by Hyperbolus. The ships conclude, "If he wants to go

¹⁰ Neils 1994: 153; Lawton 1995: 128-129; G. Anderson 2003: 168.

¹¹ Neils 1994: 153-154 argues that these scenes should be connected to the Panathenaic contest of ships. Cf. G. Anderson 2003: 168, who does not dispute this yet still links them to Themistocles' reforms.

sailing, let him launch those trays where he used to display his lamps for sale, and sail off all by himself to hell" (1314-1315). Perhaps this foreign policy discussion between the triremes is a comedic take on something Barry Strauss (1996) has noted—the trireme as a "school of democracy," encouraging political dialogue between sailors. At the very least, the recurring presence of the navy within Greek drama reveals its cultural impact, and it assuages concerns about the limited nautical scenes of Athenian art.

2.2. The Persistence of Naval Ideology

From the Battle of Salamis until 322 BCE, the Athenian state repeatedly renewed its commitment to naval power. Its commitment held true even after catastrophic naval failures. In cases where state policy turned away from the navy (e.g. during two oligarchic coups), private individuals exhibited a lingering, subversive devotion to naval ideology.

Around 460, an Athenian invasion of Egypt ended in disaster. Thucydides reports that some subset of a two-hundred ship expedition to Cyprus—consisting of Athens' own ships and those of its allies—diverted course to Egypt, taking control of the Nile and most of Memphis. But a Persian counter-attack destroyed the entire invasion force, forcing them to an island and diverting the river away from their ships. Then an Athenian relief fleet of fifty ships, arriving unaware of the previous disaster, was mostly destroyed. These two losses would

have been a substantial blow to the Athenian military, which had at most roughly 300 ships at any given time in the fifth century. Yet this incident did little to thwart Athens' fifth century commitment to naval power.¹²

In 415, in the midst of the Peloponnesian War, Athens launched an expedition to Sicily. Like the force sent to Egypt, the Sicilian expedition ended in utter defeat. Athens sent 100 ships, along with 1500 hoplites and 700 *thetes* serving as marines (Thuc. 6.43). Add to that rowers (170 per ship was standard for triremes), and allied contributions of both ships and soldiers, and the magnitude of the force comes into focus. When the Athenians at Sicily realized that their expedition would fail, they were at a loss that their usual tactics of imperial expansion had not succeeded (Thuc 7.55). When news returned to Athens in 413 that the entire expedition had been destroyed, one might expect a reevaluation of the role of the fleet in Athens' foreign policy. Yet, after their initial denial of the events at Sicily, the Athenians turned their focus to rebuilding the navy, even at the expense of other things. Thucydides notes that the Athenians were "weighed down" (ἐβαρύνοντο) at the loss of so many hoplites and cavalry; "but when they saw, also, that they had not sufficient ships in their docks, or money in the treasury, or crews for the ships, they began to despair of salvation" (8.1.2). It is the naval losses which cause the most grief for the

¹² Expedition to Egypt: Thucydides 1.104, 1.109-110. 300 ships: Amit 1965:18-27. Cf. Robinson 1999, who feels that the Delian League lost no more than 100 ships, but notes that it was, at the time, the greatest Athenian naval catastrophe to date.

Athenians, and this is where they devote the greatest restoration efforts. To be sure, military vulnerability to a great degree accounts for Athens' response. But the fleet's cultural importance was also a factor; Thucydides says nothing of attempts to address the hoplite and cavalry losses.¹³ It seems that naval restoration is the primary focus, with Athens taking steps to secure ship-building timber, money, and equipment, and to shore up its allies and subjects. In the winter of 413/2, the ship-building commenced, along with naval fortifications at Sounion.¹⁴ The utter destruction of the expedition to Sicily meant a loss of what Thucydides describes as "by far the most costly and splendid Hellenic force that had ever been sent out by a single city up to that time" (6.31.2). But despite the magnitude of this failure, Athens renewed its commitment to naval power as it prosecuted the Peloponnesian War for almost another decade.

Athens was ultimately defeated in the Peloponnesian War, another great blow to its navy. Athens' treaty with Sparta dictated that it limit its fleet to a mere twelve triremes (Xen. *Hell.* 2.2.20). Shortly before this, after the battle of Aigospotami, the general Konon had fled instead of returning to Athens (Xen. *Hell.* 2.1.29). But Konon joined up with the Persian fleet and opposed Spartan power, eventually winning the critical naval battle of Knidos in 394 (Xen. *Hell.*

¹³ Thucydides writes that there were "none left to replace them" (8.1.2), but this does not necessarily mean that the state was without recourse. Attempts to recruit foreign fighters, for example, could have been pursued. Athens had recently recruited—and sent back home—Thracians fighters (Thuc. 7.27).

¹⁴ Thucydides 8.1.3, 8.4. Cf. Gabrielsen 132-133.

4.3.10-12). Although Athens could not do so officially, some Athenians covertly supported Konon's naval endeavor. A certain Demainetos hijacked a trireme to join Konon, and he was rumored to have support from the *boule*.¹⁵ Furthermore, with a crew of up to two hundred and with substantial preparations necessary to launch a ship, Demainetos likely had a fairly large base of support from his some of his fellow citizens (Simonsen 287). I would suggest that this action was an expression of naval ideology. One trireme would not make a significant difference for Konon's fleet. But it would have been a striking symbolic action for the Athenians: "when there are only a dozen triremes, it is not hard to notice when one has gone missing."¹⁶ Demainetos' action was a step towards opposing the Spartan influence which held down Athenian naval power. It signifies a lingering devotion to Athens' naval ideology, which (for the time being) was no longer the governing principle of the state.

This ideology would ultimately take hold once again. Athens recovered from the loss of the fleet, amassing more ships in the fourth century than it had at the outset of the Peloponnesian War (Gabrielsen 126-127). G. L. Gawkwell persuasively argues that the renewed Athenian navy "kept control of the sea" in the fourth century until its defeat in 322 BCE (345). Despite the large-scale naval failures of its past (Egypt, Sicily, and Aigospotami), Athens maintained its pro-

¹⁵ *Hell. Oxy.* VI.1. Cf. Bruce 50-51; APF 102-106; Simonsen 2009.

¹⁶ Simonsen 2009: 286, referring to Seager 1967.

naval policies throughout most of its history as a democracy. Examples like Demainetos reveal that many citizens clung to naval ideology on the few occasions when state policy turned against it.¹⁷

2.3. Challenges to Naval Ideology

Although the ideology of the *nautikos ochlos* guided the state for much of the fifth and fourth centuries, this ideology did not go unchallenged. A selective reading of ancient sources can give the impression that the naval system of Athens, far from being the "shared value" required by Ober's theory, was a product of tyranny of the majority. The oligarchic Pseudo-Xenophon's *Constitution of the Athenians* associates the fleet with abuse of power by the masses. He writes:

For the staging of dramatic and choral festivals, the super-intending of the gymnasia and the games and the provision of triremes, they realize that it is the rich who pay, and the common people for whom such things are arranged and who serve in the triremes. At all events, they think it right to receive pay for singing, running and dancing, and for sailing in the fleet so that they may have money and the rich may become poorer. (1.13)

Pseudo-Xenophon alleges that the masses exploit the rich through democratic institutions, and the navy is a fundamental part of this—it is mentioned three times in this passage alone. Discussing "the provision of triremes," he alludes to

¹⁷ Consider also the case of Andocides, who sold oar-spars at cost to the Athenian fleet based at Samos in 411 when an oligarchic coup took control at home in Athens (And. 2.11).

the institution of the trierarchy. This liturgy, which was a source of ire in both the fifth and fourth centuries, deserves a closer examination.

Vincent Gabrielsen demonstrates that trierarchs were "predominantly financiers rather than military officers," with other officers on board handling the military aspects of the job when necessary (38-39). The trierarchs were charged with substantial financial obligations as a part of their service; indeed, the trierarchy was the most expensive Athenian liturgy.¹⁸ Despite the social and legal pressures to perform one's civic duty (Gabrielsen 72-73), many trierarchs were unhappy with the liturgy's financial burden. A character from Aristophanes' *Knights* reveals that the position was undesirable, issuing the threat that "I will make you be a trierarch" (912-913). A fragment of the fourth-century Attic comedic poet Antiphanes offers a glimpse of resentment for the liturgy system as a whole:

ὅστις ἄνθρωπος δὲ φύς
 ἀσφαλές τι κτῆμ' ὑπάρχειν τῷ βίῳ λογίζεται,
 πλεῖστον ἡμάρτηκεν. ἢ γὰρ εἰσφορὰ τις ἤρπακεν
 τ'ἀνδοθεν πάντ' ἢ δίκη τις περιπεσῶν ἀπώλετο
 ἢ στρατηγήσας προσῶφλεν ἢ χορηγὸς αἰρεθεῖς
 ἰμάτια χρυσᾶ παρασχῶν τῷ χορῶ ῥάκος φορεῖ
 ἢ τριηραρχῶν ἀπήγαξεν ἢ πλέων ἤλωκέ ποι. (Ath. 103 e-f).

Whichever mortal human
 Supposes to hold any wealth in life securely
 Has erred by far. For either some war tax (εἰσφορὰ) has snatched
 away

¹⁸ Gabrielsen 1994: 108, Trierarchs responsible for advance payments and bonuses to crew; 136-137, responsible for maintenance of ship.

Everything, or, falling victim to a lawsuit, he has been destroyed,
 Or serving as a general he incurs debt, or being seized as a *choregos*,
 Providing golden garments to a chorus, he wears rags,
 Or, commanding a trireme (τριηραρχῶν), he strangles himself or,
 sailing, he is captured somewhere.¹⁹

Although Aristophanes and Antiphanes were comedians, their words must have had a basis in reality for them to resonate with their audience. The Antiphanes fragment concerns itself with those who have wealth (κτῆμα). He mentions the *eisphora*, or war tax, occasionally levied on the wealthy citizens of Athens. He discusses the Athenian legal system, which could compel continued euergetism by elite Athenians and dissuade them from anti-democratic behavior.²⁰ He brings up the choregic liturgy, where Athenians funded the production of a play. Antiphanes attributes a substantial negative consequence to each of these activities, ranging from the loss of wealth to "utter destruction" (ἀπόλλυμι). When he comes to the trierarchy, there is again a negative consequence: the possibility of being captured. But Antiphanes adds an additional consideration, absent from the previous examples: the liturgical burden is so terrible that the trierarch wants to kill himself. This is hyperbole, of course, but it reiterates the point that the trierarchy was especially resented among some wealthy Athenians.

The fourth-century orator Isocrates echoes this opposition to the liturgy system:

¹⁹ My translation.

²⁰ Cf. Ober 1989. In general, see pp. 141-148.

Some are driven to rehearse and bewail amongst themselves their poverty and privation while others deplore the multitude of duties enjoined upon them by the state—the liturgies and all the nuisances connected with the symmories and with the exchanges of property; for these are so annoying that those who have means find life more burdensome than those who are continually in want. (Isoc. 8.128)

Isocrates alludes to complaints about liturgies in general, but he mentions two specific features connected to the trierarchy: the symmories, and the exchange of property (ἀντίδοσις). Again, the trierarchy is the chief target of resentment for the liturgy system.²¹

Not all dissatisfied trierarchs were content to do nothing about their plight. Matthew Christ (2006) has recently examined tax dodging behavior, including the eispheora and the trierarchy. He first sketches out the internal logic of the rich-poor relationship in Athens: "Democratic ideology did not seek so much to suppress the pursuit of self-interest as to exploit this: good citizenship, it proclaimed, benefits both the individual and the city" (15). A chief vehicle for self-benefit was *philotimia*, the competitive love of honor, with elites striving to do public services and win recognition, thereby gaining capital in the Athenian economy of *charis*. As Gabrielsen puts it, a reputation as a benefactor "was worth striving for because of its accepted ideological propriety as a visible manifestation of usefulness to the community, and because of its practical expedience in demonstrating publicly (e.g., in a court of law) that one had

²¹ Cf. Gabrielsen 1994: 8-9 for discussion about the three preceding passages from Isocrates, Antiphanes, and Pseudo-Xenophon.

incurred 'danger and expenditure'" (101). But Christ calls for a "reassessment of the role of *philotimia* in the behavior of the wealthy," taking a less optimistic view than Gabrielsen about *philotimia*'s power of persuasion (144-145). The elite citizen, prone to misgivings about the financial burden he was about to undertake, might perform his duties half-heartedly, or attempt to dodge the trierarchy altogether. Gabrielsen reveals a "widespread trend" of trierarchs failing to return their public equipment after their service was over; furthermore, individuals used various tactics to obscure their wealth in attempts to avoid the liturgy (156, 54-57). Christ marshals these pieces of evidence in support of his interpretation of *philotimia* (199-200).

Further elite opposition to the navy is represented by the writings of Plato. Attacking naval figures like Themistocles, Kimon, and Pericles, Plato's Socrates states that they have "stuffed the city with harbors and arsenals and walls and tribute and suchlike trash" (*Gorg.* 519a). Elsewhere he makes a similar statement: "So it is not walls or triremes or arsenals that cities need, Alcibiades, if they are to be happy, nor numbers, nor size, without virtue" (*Alc.* 134b). He further criticizes naval power in the *Laws*, even advancing the idea it was the land battle of Marathon, rather than the sea battles of Salamis and Artemisium, that deserves credit for the salvation of Greece (707c). Embedded in these criticisms is the notion that sea warfare is somehow inferior to the more

traditional hoplite warfare; the sailor does not develop the virtue of a fighter on land. "For sailors are habituated to jumping ashore frequently and running back at full speed to their ships, and they think no shame of not dying boldly at their posts when the enemy attack" (706c). Other educated elites would have shared Plato's view of the immorality of the sea class. For example, Thucydides records how a "mass of men, *in sailor fashion*, rushed in a fury to strike Asyochus" (8.84.3). Plato goes on to tie his argument in the *Laws* to honor, asserting that "states dependent upon navies for their power give honors, as rewards for their safety, to a section of their forces that is not the finest (707a). For the higher economic classes of Athens who tended to serve as hoplites rather than on triremes, honor was social capital. Perhaps they would have shared Plato's view that the allotment of honor in democratic Athens was askew because of the prominence of the navy.

The preceding examples show that elite tension with the sea class was extensive, and it had the potential to disrupt the state's naval ideology. Disincentives for sea power were not necessarily limited to such class conflicts. When Themistocles convinced the Athenian *demos* to undertake a large-scale ship-building program in the 480s, the funds were taken from mining revenues which otherwise would have been redistributed to the entire citizen body.²² The

²² Themistoclean ship-building: Hdt. 7.144, Thuc. 1.14.3 Aristot. Ath. Pol. 22.7.

loss of this extra income would have been a greater blow to the poor than to the rich.

Beyond these challenges of cooperation, the navy generated substantial logistical hurdles which had the potential to act as disincentives for naval power. Manpower had to be secured—and paid—with standard crews of 200 men per ship: 170 rowers, and 30 other skilled sailors, marines (*epibatai*), and archers. Ship-building resources had to be procured. Skilled craftsmen were necessary to construct—and maintain—the technically complex triremes. Infrastructure and fortifications had to be constructed to protect the ships. Finally, state institutions and policies had to be devised to oversee these endeavors.²³

Thus, there was a wide array of challenges to consensus about the navy. Yet, as examined above, Athens' devotion to naval power remained steady throughout most of the fifth and fourth centuries. This discrepancy calls for an explanation. I suggest that Ober's theory of alignment, which I will now apply to the navy, offers such an explanation.

3. Fostering Cooperation

In 354/3, Demosthenes addressed the Athenian assembly about naval matters. Considering both the organization of the fleet and the necessity of opposing a new Persian threat, he urges the people to work together:

²³ Trireme crews: IG I³ 1032, the "Decree of Themistocles," Gabrielsen 1994: 106. Timber resources: Meiggs 1982: 123-131. Craftsmen, infrastructure, etc.: Gabrielsen 1994: 28.

For as you know, men of Athens, whenever you have all set your heart on anything, and as a result have each felt obliged to take action, you have always achieved your aim. But whenever you have formed some desire, but have then looked to one another, each refusing to do anything himself but expecting his neighbor to act, you have never yet accomplished anything.²⁴

What Demosthenes outlines is a perfect example of what Ober would term an coordination problem—the Athenians have an incentive to act, but only if they do so collectively. Ober provides a comparable example: dissidents opposing a dictator. Each individual has an incentive to take action; but if they do not know that others will join them, they will not feel secure in taking the risk of opposing the regime (114-115). Likewise, an Athenian naval expedition, so heavily dependent on the participation from a wide range of sources, would depend on common knowledge that citizens will work together. Without that knowledge, individuals would lose confidence in the navy. This is where alignment comes into the picture.

Ober's model states that the formation of a shared interest occurs during the process of knowledge aggregation. This shared interest is a precondition for knowledge alignment, which moves things from the decision-making stage to execution. However, persistent challenges to naval ideology generated the risk of losing common goals. Because of this obstacle, many of Athens' attempts to promote alignment aimed to maintain the shared interest.

²⁴ 14.15. Trans. Jeremy Trevett. 2011. *Demosthenes Speeches 1-17*. University of Texas Press, Austin. 248.

3.1. Honoring Trierarchs

The state harnessed the incentivizing power of honor to encourage behavior in accordance with naval ideology. In *On the Trierarchic Crown*, Demosthenes demonstrates honor's potential to inspire action. In the speech he argues that he should receive a crown, an honor which the Assembly had offered to whichever trierarch was the first to prepare his trireme for a certain expedition (1). He defends himself against others who are claiming to deserve the crown. The fact that Demosthenes bothers to dispute their claim in court speaks to the motivating power of honorary crowns.

Demosthenes sums up an ideal trierarch, for whom the public good would be a sufficient motivation to perform his duties:

τὸν γὰρ ὑπὲρ τῆς πόλεως τριήραρχον οὐκ ἀπὸ τῶν κοινῶν
προσδοκᾶν χρῆ πλουτήσῃν, ἀλλ' ἀπὸ τῶν ἰδίων τὰ τῆς πόλεως
ἐπανορθώσῃν"

The man acting as a trierarch for the city should not expect to grow rich from public property but to promote the city's interests from his private fortune.²⁵

But in reality patriotic motives were not enough to persuade everyone to perform their service properly. Thus, the honor of state-bestowed crowns provided extra incentive. As in the case of Demosthenes 51, competitions were sometimes set up with crowns for rewards—as elite citizens strove to outdo their peers to win

²⁵ 51.14. Trans. Victor Bers. 2003. *Demosthenes Speeches 50-59*. University of Texas Press, Austin. 43.

honor, they benefitted the state by quickly preparing their triremes. This epitomizes the competitive nature of *philotimia*.

Fourth-century Athens provides several other examples of crowning. IG II² 1953 from 357/6 records that several trierarchs dedicated their crowns to Athena, which were bestowed by the Council and the Assembly after an expedition to the Hellespont. Another case involves a general Diotimos; although the sources do not explicitly mention a crown, inscriptional evidence and a line of Plutarch indicate that he was honored for a naval action which he led in 334/3.²⁶

The speaker of a forensic speech of Isocrates (18.59-61) recounts that, after Athens' naval disaster in the 405 BCE Battle of Aigospotami, he (along with his brother) was eager to continue his service while others "were glad to be relieved of their duties" (60). Despite Athenian pessimism in this latter stage of the Peloponnesian War, and the nearly utter annihilation of the Athenian fleet at Aigospotami, the speaker's ship continues to engage the enemy (60) and it secures grain resources for the city (61). In response, the demos honors him:

ἀνθ' ὧν ὑμεῖς ἐψηφίσασθ' ἡμᾶς στεφανῶσαι καὶ πρόσθε τῶν
ἐπωνύμων ἀνειπεῖν ὡς μεγάλων ἀγαθῶν αἰτίους ὄντας.

In recognition of these services you voted that we should be honored with crowns, and that in front of the statues of the

²⁶ Engen 2010: 186; IG II² 1623.276-85; IG II² 414a; Plut. *Ten Orat.* 844a.

eponymous heroes we should be proclaimed as the authors of great blessings. (61)

This case furnishes additional honors on the benefactors—public proclamation of their good deeds in a prominent location in the agora. It also reveals another dimension of the incentivizing power of *philotimia*. The speaker is able to draw on his past service to the state to demonstrate his good character, thus bolstering his case in court. Ober (1989) argues that this expectation of *charis* from the people in return for liturgical service was a central part of a social balancing act. Gabrielsen agrees with him that this relationship between classes helped to maintain cooperation (215).

A final example of crowning is a 325/4 BCE inscription of Athens' naval curators.²⁷ Recording a decree for dispatching a fleet to establish a naval base in the Adriatic Sea, it is another case where crowns are awarded based on a competition.

190 ...τὸν δὲ πρῶτον πα-
 [ρακομί]σαντα στεφανωσά-
 [τω ὁ δῆ]μος χρυσῶι στεφά-
 [νωι ἀ]πὸ :^{PH}: δραχμῶν,
 [τὸν δὲ] δεύτερον ἀπὸ :HHH
 195 [δραχμ]ῶν, τὸν δὲ τρίτον ἀ-
 [πὸ :HH]: καὶ ἀναγορευσά-
 [τω ὁ κῆ]ρῶς τῆς βουλῆς Θαρ-
 [ηγλιῶν] τῶι ἀγῶνι τοὺς στε-

²⁷ Ober (2008) considers crowning during his examination of aggregation, but such incentives certainly fall under the umbrella of alignment as well: they are attempts to encourage specific actions (e.g. speedy trireme preparation). Honorary incentives spur movement from the decision-making phase to the execution of a plan.

200 [φάνους], τοὺς δὲ ἀποδέκτας
 [μερίσα]ι τὸ ἀργύριον τὸ
 [εἰς τοὺ]ς στεφάνους, ὅπω-
 [ς ἂν ἦι] φανερά ἢ φιλοτι-
 [μία ἢ εἰ]ς τὸν δῆμον τοῖς
 [τριηρ]άρχοις.

The people are to crown the first man to bring his ship with a gold crown of 500 dr. and the second with a crown of 300 dr. and the third with a crown of 200 dr., and the herald of the council is to announce the crowns at the contest of the Thargelia, and the *apodektai* are to allocate the money for the crowns, in order that the competitive zeal (*philotimia*) of the trierarchs towards the people may be evident.²⁸

This decree does not limit success to first place. The second and third trierarchs still receive a crown, which would have encouraged further competition after someone achieved the first place crown. This passage also reveals that crowns could entail financial incentives. Continuing, the inscription reveals not only incentives for good deeds, but financial disincentives for bad deeds.

235 ἐὰν δέ τις μὴ ποιήσει, οἷς
 ἕκαστα προστέτακται, ἢ
 ἄρχων ἢ ιδιώτης, κατὰ τόδε
 τὸ ψήφισμα, ὀφειλέτω ὁ μὴ
 ποιήσας μυρίας δραχμὰς

... but if anyone to whom each of these things has been commanded does not do them in accordance with this decree, whether he be a magistrate or a private individual, the man who does not do so is to be fined 10,000 dr.

²⁸ *IG II² 1629 190-204*. Trans. Rhodes. 2003. *Greek Historical Inscriptions: 404-323 BC*. Oxford University Press. 517.

A similar disincentive is present in Demosthenes 51—anyone who failed to prepare their ship on time would be imprisoned (4). The simple inconvenience of imprisonment would certainly motivate people, but it would also be a dishonor.

Thus, Athens harnessed honor as an incentive for properly performing trierarchies. Such incentives served to put plans into action by shaping the body of common knowledge held by elite liturgists; thus, they are examples of alignment. Liturgists might be reluctant to place their wealth and their lives in jeopardy by undertaking a trierarchy. But public honors could mitigate this reluctance by dangling the carrots of honor, advantage in court, and financial rewards to trierarchs.

The attempt of crowning at affecting common knowledge is even more apparent. The naval station decree of *IG II² 1629* states the reasoning for giving crowns: it is done "in order that the competitive zeal (*philotimia*) of the trierarchs towards the people *may be evident*" (201-205). This phrasing makes explicit that Athens' approach was based on manipulating common knowledge. And, as examined above, elite citizens stood to gain from having their *philotimia* publicized to the demos. Such expressions of "hortatory intention" are also found in decrees related to trade. Darel Tai Engen notes that "the intent of Athens' practice of granting honors and privileges was not only to reward those who had performed trade-related services but also to encourage others to perform similar

services."²⁹ Likewise, in this case Athens had the explicit motive of causing future good service from trierarchs.

Demosthenes 51 contains a comparable statement of common knowledge. In his closing words he exhorts his audience not to find in favor of his opponents: by awarding them a crown they do not deserve, "you will *teach everyone* to be as cheap as possible in managing the responsibilities you assign" (διδάξετε πάντας τὰ μὲν ὑφ' ὑμῶν προσταπτόμεν' ὡς εὐτελέστατα διοικεῖν, 22). Note that Demosthenes is addressing the *Boulē*, which heard legal cases on occasion. Addressing them as the *andres Athenaioi* (22), perhaps Demosthenes is imagining the council-members as "standing in for the demos and as representing the demos' interests," an argument Ober has made for Athenian juries in general (1989: 146). If so, then Demosthenes calls on the Athenian people to consider common knowledge and how it affects the navy.

3.2: Architecture, Physical Space, and Symbolism

Public monuments in Athens promoted knowledge alignment. As Ober explains, "Public monuments function as publicity media for conveying civic informational content ... [They] may present spectators with a commonly available, relatively clear, and therefore 'unitary' account of some aspect of shared culture or history" (197). Some of these monuments "were distinctively

²⁹ 61-62, referencing Henry 1996.

concerned with making democratic content public—and thereby with building a distinctively democratic body of common knowledge" (199). Architecture and public space can have a similar effect. Ober focuses on how laying out physical spaces as "inward-facing circles" can facilitate face-to-face contact and democratic participation (199-205).

The Piraeus, I will argue, exemplifies these forms of alignment. Its infrastructure and fortifications conveyed ideological messages to the Athenians. Conveying ideology, I argued above, was a key part of alignment in the case of the navy. Through its monumentality, Athens' naval infrastructure made a statement about the city's commitment to naval power, thus addressing a problem of coordination which Ober identifies—the lack of knowledge of others' commitments. That the Greeks identified architecture with naval ideology can be further seen from Athens' enemies' eagerness to destroy its fortifications, and the Athenians' eagerness to rebuild following destruction.

According to Thucydides, before the beginning of the Peloponnesian War when the Corinthians try to convince Sparta to declare war on Athens, they invoke the example of the long walls, fortifications which connected Athens to the Piraeus. The Corinthians' complaint is practical—the walls make Athens too secure in its reliance on naval power, and this jeopardizes other states. But the long walls also seem symbolic of the excesses of Athens' naval empire.

You it was who first allowed them to fortify their city after the Persian war, and afterwards to erect the long walls—you who, then and now, are always depriving of freedom not only those whom they have enslaved, but also those who have as yet been your allies. (1.69.1)

The fortifications themselves are not the chief concern; they are part of a larger argument. But they symbolize Athenian aggression.

The long walls held symbolic value not only for Athens' enemies, but for the Athenians themselves. At the outset of the Peloponnesian War, the Athenians withdraw inside the city in accordance with Pericles's strategy to conceptualize the city as an island (Thuc. 1.143.5, 2.14). As I argued above, this island imagery was a manifestation of the naval ideology of Athens. The secure connection of city to harbor provided by the long walls was crucial to such a strategy. During an Assembly speech, Pericles mentions the long walls as one of several reasons for confidence in this strategy (Thuc. 2.13.7).

Even on the verge of defeat at the end of the war, Athens still attempted to retain its naval fortifications. With the Piraeus blockaded by the Peloponnesian fleet, Athens refused to surrender "even though many were dying of starvation throughout the city" (Xen. *Hell.* 2.2.9-11). But when the city finally caved in, they offered to make a treaty "if only they could retain their Long Walls and the fortifications of the Peiraeus" (2.2.11). The Spartans utterly rejected this offer, but

the Athenians still persisted; they passed a decree making it illegal to debate tearing down the long walls.³⁰

Ultimately, with the Peloponnesians not wavering on their terms of peace, and with "a large number of Athenians perishing every day" (2.2.21), the Athenians gave in—but even then some people still opposed tearing down the long walls (2.2.22). With Athens' navy reduced to only twelve ships, the Peloponnesians' insistence on the destruction of the long walls suggests that they were concerned not only with the pragmatic purpose of limiting Athens' military power, but also with the symbolic value of the walls. The Athenians' tenacity in arguing for retaining the walls, even in the face of mass starvation, reinforces this interpretation.

The destruction of the walls began "to the accompaniment of music provided by flute girls, and they believed that that day would be the beginning of freedom for all of Greece" (2.2.23). This indicates that the enemies of Athens at this point were, in essence, waging an ideological war as much as they were trying to weaken the physical infrastructure of the city. They sought to purge the city of its imperialistic ideology and, by extension, its naval character. Tearing down the walls was even celebrated with the public entertainment of the flute girls. As Garland puts it, "the political consequences of the separation [of the

³⁰ Xen. *Hell.* 2.2.15. Cf. Garland 2001: 32.

Piraeus from Athens] were no less significant than the military ones. ... The demise of the fleet and the hoped-for decay of the Piraeus signalled in effect an attempt on Sparta's part to roll back the tide of political progress" (33).

After the war the Thirty Tyrants were installed in Athens in place of the democracy, and the ideological struggle continued. The Thirty tore down the ship-sheds in the Piraeus (Garland 96). These structures, besides being crucial for the operations of the navy, were of symbolic importance to the Athenians. A 2012 archaeological publication of the Zea Harbour Project concludes:

The naval installations that were built in Zea Harbour in the second quarter of the 4th century BC, and probably also parts of the 5th century BC, are amongst the largest building complexes of antiquity. In the late 330s BC the shipsheds at Zea extended over an area of more than 55,000 m²; including the shipsheds in Kantharos and Mounichia Harbours, the total area covered by the shipshed complexes in the Piraeus was close to 110,000 m². Hundreds of colonnades and side-walls carried the massive tiled roofs of these shipsheds, which clearly conveyed Athens' determination to 'monumentalise' and glorify the naval bases that protected the city's fleet of swift *triremes* at the height of her power. (Lovén 173-174)

The ship-sheds of the Piraeus, then, were a sort of public monument. Through their monumental scale, they disseminated the naval ideology. One need not rely on secondary sources to find such high regard for the grandeur of the ship-sheds. Demosthenes refers to the ship-sheds as a great monument on par with structures like the Parthenon.³¹ The Thirty Tyrants' destruction of the ship-sheds

³¹ Dem. 22.76, Garland 96.

would not only strike a blow at Athens' infrastructure, but at its democratic character. But after restoring the democracy Athens' naval ideology manifested itself, as they quickly set about restoring both the long walls and the infrastructure of the Piraeus (Garland 96).

Plutarch attributes another act of ideological warfare to the Thirty. He writes: "Therefore it was, too, that the bema in Pnyx, which had stood so as to look off toward the sea, was afterwards turned by the thirty tyrants so as to look inland, because they thought that maritime empire was the mother of democracy, and that oligarchy was less distasteful to tillers of the soil" (*Them.* 22.7). If he is correct, then this fits the pattern I have demonstrated above. However, scholars have questioned whether the Thirty are even responsible for the reversed orientation. The claim of motivation for the reversal has been met with even more doubt.³² Therefore, it is probably not safe to assume that this exemplifies an intentional attack upon the ideology of Athens. What is relevant here is the ancient interpretation of the reversal of orientation. Given Plutarch's tendency to rely on Attidographers as sources, this interpretation of the Pnyx rotation as an ideological attack could date back as far as the fourth century BCE. Even if the Thirty had other goals in mind, it is significant that the Athenians may have viewed rotating the Pnyx as a statement about their naval culture.

³² Garland 2001: 33-35, 183; Krentz 1984; Moysey 1981; Thompson 1982: 139-140.

It is also worth noting that, at least in the fourth century, Athens occasionally held Assemblies in the Piraeus; this may have been a regular occurrence when naval business was at hand (Garland 82). The decision to convene in the harbor, a substantial walk from the city center (almost two hours according to Google Maps), would have sent messages about the priorities of the state.

Athens' naval infrastructure, I have argued, served as a sort of public monument. Turning to Ober's idea of architecture's effect on democratic discourse through the use of "inward facing circles," this point perhaps seems of minor relevance to the navy. The Piraeus certainly contained the sorts of public spaces Ober discusses, but they were not as directly involved in the operation of the navy as the infrastructure I discussed above. However, setting the circles aside, there are similar points to note about the use of physical space in the Piraeus.

Garland (95-100) discusses how sections of the Piraeus were delineated to form a "naval zone." He notes that at least one of the three ports in the Piraeus had a "circuit wall marking off the harbour from the rest of the town." Therefore, he continues, "it is likely that the naval zone, like the Emporion, formed a self-contained unit, entry to which was perhaps reserved for naval personnel" (96). Beyond the wall, the space around the harbor was marked off by boundary

stones as public space (Gill 9). This calls to mind Vlassapoulos's argument about "Free Spaces"—that public spaces in Athens served to blur identities across class and status. He sees the trireme as an example of such a space (38). Perhaps the Piraeus, with its marked-off naval zone and surrounding public spaces, served a similar function, disseminating ideology as well as practical knowledge. The reputation of the Piraeus for a strong democratic character lends credence to this interpretation.

Such delineation of space could also align knowledge on a quite fundamental level—that of "spatial navigation" (Ober 2008: 197). Ober points out that focal points can "help to solve everyday coordination problems... [by allowing] similarly well-informed persons to coordinate their movements without detailed communication" (197). I would argue that marking off the naval zone of the Piraeus served a similar function. So did the layout of the Piraeus at large with its rigid orthogonal street grid, a design attributed to the city planner Hippodamus of Miletus.³³ Although this is not strictly concerned with ideology, a well-planned harbor district would address some of the most basic logistical challenges of managing a navy.

³³ Aristot. *Pol.* 2.5.1267 b22-1268 a14. Cf. Garland 26-27; Gill 2006 is a recent examination of Hippodamus and the design of the Piraeus.

3.3: Ritual

Public rituals also promote knowledge alignment because they convey civic content. Ober contends: "Grasping that civic content *as common knowledge* relevant to coordination of action *in a democratic community* was part of what the ritual was 'about' for the Athenian participants" (197). The embarking of naval expeditions, a scene depicted in both Thucydides and Aristophanes, was a sort of public ritual. Dispatching a fleet apparently was accompanied by certain religious ceremonies. But the ritual of embarkation also encompassed those not acting in any official ceremonial capacity. Those involved in preparing the fleet, and those who went to see it off, were participants in an informal ritual.

Thucydides' vivid description of the dispatch of the Sicilian expedition deserves to be quoted in full:

But the Athenians themselves, and such of their allies as happened to be with them, went down to the Piraeus upon a day appointed at daybreak, and began to man the ships for putting out to sea. With them also went the whole population, one may say, of the city, both citizens and foreigners; the inhabitants of the country each escorting those that belonged to them, their friends, their relatives, or their sons, with hope and lamentation upon their way, as they thought of the conquests which they hoped to make, or of the friends whom they might never see again, considering the long voyage which they were going to make for their country. Indeed, at this moment, when they were now upon the point of parting from one another, the danger came home to them more than when they had voted for the expedition; although the strength of the armament, and the profuse provision which they observed in every department, was a sight that could not but comfort them. As for the

foreigners and the rest of the crowd, they simply went to see a sight worth looking at and passing all belief. ...

The ships being now manned, and everything put on board with which they meant to sail, the trumpet commanded silence, and the prayers customary before putting out to sea were offered, not in each ship by itself, but by all together the voice of a herald; and bowls of wine were mixed through all the armament, and libations made by the soldiers and their officers in gold and silver goblets. They were joined in their prayers by the crowds on shore, by the citizens and all others who wished them well. The hymn sung and the libations finished, they put out to sea... ." (6.30-6.31.1, 6.32.1-2)

The "whole population" of Athens (ἅπας ὁ ἐν τῇ πόλει) journeys to the Piraeus, conjuring an image which might as well be a ritual procession, such as that of the Panatehanaia. Multiple ritualistic actions take place. A trumpet commands silence; a herald makes customary prayers; soldiers pour libations; a hymn, or paean, is sung (παιανίσαντες).³⁴ Notable from Thucydides' account is the reaction of Athenians to the ritual. They reflect upon their previous vote to authorize the expedition (6.31.1). They consider their desire for imperial expansion with mixed hope and sadness (6.30.2). This is a stark example of knowledge alignment. The entire democratic community of Athens participates in this ritual; the spectacle of it all conveys civic and ideological information to the Athenians; they, in turn, collectively reflect upon their democracy.

This was not a typical fleet launch, however. Because of the grand scale of the Sicilian expedition, this embarkation ritual was probably larger than usual.

³⁴ The trumpet and paean are also encountered in *The Persians* 393-395 when the Greek naval forces set upon their enemy in the battle of Salamis.

Indeed, Thucydides suggests that the customary prayers were normally performed on individual ships rather than collectively (6.32.1). Still, there is no reason to suppose that other launchings did not include at least some of these ritual elements. And, even though those only interested in spectacle might not attend, family members would have still accompanied sailors to the launching of the ships. Garland infers from Aeschylus's *Agamemnon* that there was also a corresponding ritual: "Just as it was from the quayside of the Piraeus that Athenians waved goodbye to their loved ones as each fleet set sail, so too it was here on the quayside that they anxiously awaited the grim return of a dispatch boat bearing cinerary urns in place of men, a melancholy ritual that was consummated with near-seasonal regularity" (100). This perhaps explains why Thucydides attributes sadness as well as hope to the Athenians bidding farewell to the fleet: they know that they will return here for news of the dead, whether victorious or not.

Aristophanes' *Acharnians* provides another description of naval embarkation. Unlike the account of Thucydides, *Acharnians* sets the scene from the perspective of an ordinary citizen, the play's main character Dicaeopolis.

Imagining a naval expedition, he declares:

You'd have instantaneously dispatched three hundred ships; the city would fill with the hubbub of soldiers, clamor around the trierarch, pay disbursed, emblems of Pallas being gilded, the Colonnade reverberating, rations being measured out, wallets,

oarloops, buyers of jars, garlic, olives, onions in nets, garlands, anchovies, piper girls, black eyes. And the dockyard (τὸ νεώριον) would be full of oarspars being planed, thudding dowelpins, oarports being bored, pipes, bosuns, whistling and tooting.³⁵

The piper girls in this account perhaps suggest a performative element. There are also religious symbols with the emblems of Pallas. Thucydides' scene also mentions such symbols (6.32.3). Otherwise Aristophanes does not mention the formal elements of ritual found in Thucydides' account. Yet, one may consider this as a sort of informal civic ritual. A wide array of individuals are playing appointed roles: those preparing the ships and their equipment, those distributing wages, those managing provisions.

By putting this account in the mouth of Dicaeopolis, Aristophanes reveals how a common citizen of Athens might experience the launch of a fleet. Dicaeopolis places special emphasis on the sounds of the Piraeus with words like clamor, reverberation, and thudding. And, just as the Athenians evaluate their previous vote in the account of Thucydides, Dicaeopolis is evaluating Athens' foreign policy regarding the Peloponnesian War. His imaginary fleet comes at the end of a speech he makes in opposition to the war. Although the departing fleet does not induce his thoughts on the matter, Dicaeopolis uses the symbolism-rich scene to make his point. Furthermore, he depends on the departing fleet to be, to

³⁵ 544-554. Trans. Jeffrey Henderson. 1998. Loeb Classical Library.

some extent, common knowledge among his audience in order for the imagery to be effective.

The departure of a fleet is the best example of ritual relevant to the navy. But there are other noteworthy examples. At some point ship races became a feature of the Panathenaic festival.³⁶ Jenifer Neils has made the "tentative suggestion" that some of the extant *aphlaston* scenes are linked with victories in the Panathenaic ship race (154). Greg Anderson suggests, "If Neils's proposal is correct, it may be that the contest was added to the Panathenaia within a decade or two of Cleisthenes' reforms. But perhaps the most likely stimulus for the new events was the consolidation of the Athenian navy by Themistocles in the later 480s" (168). The Panathenaia also included a "ship on wheels" which transported the sacred peplos; again, some have associated the inception of this practice with the rise of Athenian naval power after Salamis (Wachsmann 239).

There are further examples of the synthesis of religious ritual and the navy. It may be worth noting that one of the few extant depictions of a warship from democratic Athens is a bronze ship-shaped lamp, likely from the fourth century BCE, inscribed with a dedication to Athena (IEPON THΣ AΘHNAΣ).³⁷ Thucydides mentions a victorious Athenian fleet dedicating a ship to Poseidon in

³⁶ Wachsmann 2012: 238, n. 8 provides extensive bibliographic information for the race.

³⁷ Acropolis Museum EAM X 7038. Discovered in the Erechtheion. Discussion and photographs in Wachsmann 248-251.

addition to setting up a trophy (2.84.4). Another example involves Konon after his naval victory against the Spartans in the Battle of Knidos. "In celebration of his victory, Konon either constructed a shrine to Aphrodite in the Piraeus or else expanded an already existing one which had been dedicated after the battle of Salamis" (Garland 40).

4. Overcoming Logistical Challenges

Among the logistical obstacles to Athens' aspirations to sea power, the need to secure manpower and building materials were two of the most prominent.³⁸ Extant honorary inscriptions include decrees for individuals whose actions supported the navy. Such decrees helped address these logistical challenges. The strategy was to create a basis of common knowledge about the navy in order to foster coordinated pro-naval activity. Thus, they are an example of alignment.

4.1. Manpower

IG II² 276, dated to *ante* 336/5, is an honorary decree for Asklepiodoros, a foreigner, for his service in the fleet. Even though Asklepiodoros was a foreigner, this example is still relevant; as I noted above, Athens often used foreigners to man its triremes.

[... τῆ]ς πρυτα[νείας· τῶν προέδρων ἐπεψ]-
[ήφιζεν]κράτη[ς15.....]

³⁸ Gabrielsen 1994: 107-109, 139-142.

[...9... Π]οτάμιος ε[ἴ]πεν· περὶ ὧν ἔδο]-
 [ξε Ἀσκληπιό]δωρος [Πο]λυ.....12.....
 5 [· ἐν τεῖ βο]υλεῖ ἔννομα ἰ[κετεύειν· ν ἐψ]-
 [ηφίσθαι] τῶι δήμωι· ἐπειδὴ [Ἀσκ]ληπι[ό]δω]-
 [ρος ἀνήρ] ἀγαθὸς ἐγένετο μ[αχό]μενος π[ρ]-
 [ὸς τοὺς] πολεμίους π[λέω]ν ἐ[πι] τῆς τριήρ-
 [ους τῆς] Χάρητος τοῦ Αἰξων[έ]ω[ς], ἐπαινέ[σ]-
 10 [αι αὐτὸ]ν καὶ στεφανῶσαι θα[λ]λοῦ στεφ[ά]-
 [νωι ἀν]δραγαθίας ἔνεκα καὶ καλέσαι ἐ[π]-
 [ι ξένι]α εἰς τὸ πρυτανεῖον εἰς αὐριον· [ε]-
 [ἴν]αι δὲ αὐτῶι καὶ ἰσοτέλειαν καὶ ἐκγ[ό]-
 νοις οἰκοῦντι Ἀθήνησιν καθάπερ τοῖ[ς]
 15 ἄλλοις ἰσοτελέσιν, ὅπως ἂν εἰ[δ]ῶσιν π[ά]-
 ντες ὅσοι ἂν στρατεύωνται μετ' Ἀθηνα[ί]-
 [ων] ὅτι τιμᾶι ὁ δῆμος τοὺς ἄνδρας τοὺς [ἀ]-
 [γ]αθοὺς· τὸ δὲ ψήφισμα τόδε ἀναγράψας [ό]
 [γρ]αμματεὺς ἐν στήλει λιθίνει στησά[τ]-
 20 [ω] ἐν ἀκ[ροπό]λει· εἰς δὲ τὴν ἀναγραφὴν δ[ό]-
 [τ]ω ὁ τα[μίας] τοῦ δήμου εἴκοσι δραχμᾶς [ἐ]-
 [κ] τῶν κ[ατὰ ψ]ηφίσματα ἀναλισκομένων [τ]-
 [ῶ]ι δήμωι· ν Κηφισοφῶν Καλλιβίου Παια[ν]-
 [ιε]ὺς εἶπεν· τὰ μὲν ἄλλα καθάπερ τεῖ βο[υ]-
 25 [λεῖ· ἐπειδὴ δὲ Ἀ]σκληπιόδωρος ἀνήρ ἀγ[α]-
 [θός — — — — — — — — — — — — — — — —]ονα...

The inscription's stated purpose for honoring Asklepiodoros is because "he was a brave man fighting against the enemy on the trireme of Chares" (6-9). It orders him to be "crowned with a crown of olive branches on account of manly virtue" (10-11). It grants ἰσοτέλεια (*isoteleia*), equality of taxation with Athenian citizens, to Asklepiodoros and his descendants living in Athens (13-15). It provides him with ξένια (*xenia*), a grant of hospitality in the Prytaneion.³⁹

³⁹ Engen 2010: (168-169) explains that *xenia* "consisted of a formal reception and took place in the Prytaneion, a structure specifically devoted to the entertainment of visiting dignitaries as well as Athens' most honored citizens."

Furthermore, the decree orders itself to be inscribed on a stone stele and set up on the acropolis (18-20).

Thus, Asklepiodoros was the recipient of substantial honors: an olive wreath, special tax status, recognition in the Pytaneion and further honor through the public display of the decree. But the *demos* made this decree with motives beyond honoring Asklepiodoros. In fact, the inscription contains another expression of hortatory intention which explicitly states its ultimate goal. The decree was made "*so that all may know that the demos honors the brave men of those who fight with the Athenians*" (15-18). Concerning itself with what everyone knows, the decree attempts to build up a body of common knowledge surrounding the navy. By honoring Asklepiodoros, Athens encourages similar behavior. Since he was a foreigner, the target of this effort was not just Athenian citizens, but especially the foreigners who often served in the Athenian fleet.

That Athens would pay such attention to common knowledge among non-citizens makes sense when considering the broader manpower challenges in the fleet. Assembling a trireme crew would have been a hassle. A crew of two-hundred was standard, with the one-hundred and seventy rowers comprising the largest sub-group to procure.⁴⁰ As Gabrielsen points out, "even with fleets of a moderate size, the amount of rowing labor and of specialized deck personnel

⁴⁰ Epigraphical sources for trireme crews include IG I³ 1032 and the "Decree of Themistocles," *GHI* 23. The specifications of crews are summarized in several secondary sources, including Gabrielsen 1994, 106.

needed was enormous" (108). To address this logistical hurdle, Athens relied on multiple sources to man its fleets, employing its own citizens, resident foreigners (*metics*), non-*metic* foreigners, and slaves in the fleet.⁴¹ Thus, the decree for Askelpiodoros strove to encourage continued participation in the fleet from the ranks of foreigners.

Gabrielsen also demonstrates that trierarchs were normally responsible for recruiting their own rowers (107-110). The trierarch faced a multifarious challenge in assembling a crew—he not only had to find enough men for his trireme, he had to find those of sufficient skill. And he was sure to pay a premium for the best rowers: as a speech of the trierarch Apollodoros reveals, a competitive market emerged for sailors in Athens. He says, "I hired the best sailors possible, giving each man gifts and a large advance payment" (Dem. 50.7). Cawkwell's discussion of the fourth-century navy states that "the supply of rowing labour will have matched demand" (1984, 335). While this may hold as a general rule, Gabrielsen points out that exceptions were rather common.⁴² Furthermore, desertion often posed serious threats to the fleet (Gabrielsen 121-123). Assembling a sufficient crew on the front end was no guarantee that they would remain loyal over the long haul of an expedition.

⁴¹ Graham 1992, Graham 1998. Graham 1998 demonstrates that slaves and their masters sometimes served together as rowers—the slave-owners did not only serve in more prestigious roles on the ship.

⁴² Gabrielsen 1994: 107-109. Naval expeditions sometimes had to resort to conscription when a sufficient crew could not be mustered; cf. Gabrielsen 1994:108 n. 6.

Recruiting and retaining crews sufficient in both numbers and skill, therefore, deserved attention in Athens. And there is evidence for this attention — in the fourth century BCE when *IG II² 276* was inscribed, but also in the fifth. A speech Thucydides attributes to Pericles, set just before the outbreak of the Peloponnesian War, provides one example. Pericles speaks in the Assembly, convened to discuss the looming prospect of war with Sparta (1.139). He reminds the *demos* of the virtues of Athens' status as a sea power, arguing that the strength of the navy should make the Athenians "confident in ultimate victory" (1.144.1). The damage Athens can do with its navy to the Peloponnesians outweighs what harm the armies of Peloponnesian states could inflict on Athens (1.143.4). Furthermore, Pericles invites the Athenians to think of themselves as an island (1.143.5), reminiscent of when Athens abandoned the city during the Persian Wars, took to the fleet, and won the decisive naval battle of Salamis.

But for Pericles' strategy to be sound, the city must have enough sailors to man its fleet. Thucydides has already expressed this concern earlier in his history in a speech he attributes to the Corinthians. Urging their Peloponnesian allies to make war on Athens, the Corinthians say:

If we borrow money from [the funds in Olympia and in Delphi] we shall be able to attract the foreign sailors in the Athenian navy by offering higher rates of pay. For the power of Athens rests on mercenaries rather than on her own citizens; we, on the other hand,

are less likely to be affected in this way, since our strength is in men rather than in money.⁴³

The Corinthians portray naval manpower as a weakness of Athens. They propose that luring sailors away from Athens would be an effective strategy. Pericles' speech responds to these manpower concerns:

Suppose they lay their hands on the money at Olympia or Delphi and try to attract the foreign sailors in our navy by offering higher rates of pay: that would be a serious thing if we were not still able to be a match for them by ourselves and with our resident aliens serving on board our ships. As it is, we can always match them in this way. Also – which is a very important point – we have among our own citizens more and better steersmen (κυβερνήτας) and sailors (ὑπηρεσίαν) than all the rest of Hellas put together. Then, too, how many of our foreign sailors would, for the sake of a few days' extra pay, fight on the other side at the risk not only of being defeated but also of being outlawed from their own cities?
(1.143.1-2)

Here, Pericles employs three strategies to address fears about manpower shortages. First, he claims that the Athenian citizens and the *metics* would be sufficient in number to man the fleet even if the foreign sailors deserted. Second, because of the substantial seamanship skills of the Athenian citizens, foreigners and slaves would not want to defect—fighting on the inferior fleets of the Peloponnesians would likely mean defeat or even death. Third, Pericles mentions the possibility of being outlawed from Athens as a disincentive. It is critical for Pericles to persuade sailors that these three points are true. Athens might have

⁴³ 1.121.3. This and all following passages from Thucydides: Trans. Rex Warner. 1954. Penguin Classics.

the most skilled helmsmen, but this would not prevent defection if it were not common knowledge. The individual's choice to be a sailor for Athens depends on the actions of others. Thus, when Pericles publicly asserts this information, he induces the people to fall in line.

Pericles' claim that Athens, at the outset of the war, had enough manpower among the citizens and metics alone, may not be true. Apparently the Corinthians did not think so. In any event, it certainly was not true towards the end of the war. The battle of Arginusai in 406 offers another glimpse of Athenian concern for manpower. After the battle, Athens freed the slaves who served in the fleet during the battle. Peter Hunt persuasively argues that these slaves were not only freed, they were granted "Plataean" status, effectively making them citizens (2001). These freed slaves would now "become members of Athenian demes and tribes, could vote and speak in the assembly, could sit in the *boule* and the *dikasteria*, and could marry Athenian women" (Hunt 2001: 363). Hunt further argues that "the promise of freedom was intended to motivate the slaves: the grant of Athenian citizenship was an attempt to keep them rowing for Athens rather than deserting and ending up in the enemy's navy" (2001: 359). Freeing so many slaves was an atypical measure, and Hunt acknowledges that the Athenians—who would themselves have chosen in the Assembly to free these slaves—may have regretted the decision later. But even if this was an isolated,

extreme act prompted by the desperation of the Peloponnesian War, the incident reveals that retaining enough rowers was a critical consideration. Under more typical circumstances, the incentive of freedom still loomed for slaves serving in the fleet. Slaves received pay for rowing, and they could "save whatever portion of their wages their master allowed and eventually buy their freedom" (Hunt 1998: 94). One would suppose that a slave would never achieve freedom if the master could simply withhold the wages. However, a corrupt line from Pseudo-Xenophon may suggest that it was not an atypical occurrence: "If anyone is also startled by the fact that they let the slaves live luxuriously, it would be clear that even this they do for a reason. For where there is a naval power, it is necessary from financial considerations to be slaves to the slaves in order to take a portion of their earnings, and it is necessary to let them go free" (11).

With all of this in mind, the strategically honorary decree for Asklepiodoros comes into focus. Although the examples above are from the Peloponnesian War, which certainly demanded greater numbers of rowers than usual, manpower considerations were still significant during the fourth century when the decree was inscribed. After the destruction of the fleet at the end of the Peloponnesian War, Athens restored its fleet by 378, eventually building more triremes than it ever had in the fifth century (Gabrielsen 126-129). And Athens

had new rivals prompting the state to consolidate its military might: first the Thebans, and then the Macedonians.

4.2. Equipment and Building Materials

If finding enough rowers was a challenge for fifth-and-fourth century Athens, then obtaining enough equipment and ship-building materials was at least equally challenging. Building the massive trireme fleet required an abundance of materials—especially timber—which were not available in sufficient quantities in Attica. Furthermore, even if a trireme hull was built and had a full crew of sailors, it would be useless without some additional equipment, such as oars and sails. This equipment was often in short supply.⁴⁴ Consequently, Athens had to resort to importing equipment and building materials. On the institutional level, Athens used financial incentives to ensure the construction of ships. But the state also targeted individuals, just as in the case of manpower; Athens harnessed honor as a tool to incentivize activity in support of the navy, using honorary decrees to promote alignment in procuring necessary resources.

Aristotle's *Athenaion Politeia* discusses the role of state institutions in managing the navy. The Boule apparently oversaw the construction of triremes. A regulation ensured that naval matters were not neglected:

⁴⁴ Gabrielsen 1994: 141, speaks of "acute, short-term shortages of supplies." Cf. Casson 1971 and Gabrielsen 1994: 227-228, for lists of equipment.

The Council also inspects triremes after construction, and their rigging, and the naval sheds, and has new triremes or quadriremes, whichever the People votes for, built and rigged, and naval sheds built; but naval architects are elected by the People. If the outgoing Council does not hand over these works completed to the new Council, the members cannot draw their bonus, which is payable when the next Council is in office. For the building of triremes it elects ten of its own members as Naval Constructors. (46.1)

The Boule not only inspects completed triremes, it manages the construction of new ones. Whatever role it had in the management of resources is left unstated. But failure to properly manage the construction of ships would result in loss of their bonus (δωρεά). This must have motivated the council-members to ensure that there was sufficient equipment and building materials for new ships.

IG I³ 182 is an honorary decree for Antiochides and Phanosthenes, dated to somewhere between 430-405 BCE. Although it is more fragmentary than the decree for Asklepiodoros, the general sense of the decree is clear; the two men are being honored for importing oars for the navy. Three selections from the decree are provided below.

Lines 1-14:

[...7... Ἀν]τιοχίδει κα[ὶ φανοσθένει12.....]

[...10....]ς Ἀθηναίοις [.]ι[.....19.....]

[...10....]ορας καὶ τὰ ἄλλα ἡοτ[.....16.....]

[...9.... τὸ]ν δέμον τὸν Ἀθηναί[ον.....14.....]

5 [. .6. . . καθάπε]ρ καὶ νῦν αὐτός, καὶ ἡ[όπος ἂν φαίνεται]
[Ἀθηναίων ὁ δέμο]ς ἡος περὶ πολλῶ ποι[όμενος τὸς ἐσάγ]-
[οντας κο]πέας [κα]ὶ χάριν ἀποδόσον τὸ λ[οιπόν, ἀτελεῖς τ]-
[όκο ἑκατοστῶ [τὸ]ς κοπέας ἡὸς ἔγαγον [ἀποδόντων τοῖς]
[τρι]εροποιοῖς, κ[αὶ] ἡοι τριεροποιοῖ // [.....12.....]

10 [τιθ]έντον ἐς τὸ να[υπέ]γιον, καὶ ἐὰν δέ[ονται αὐτῶν ἡοι]
[στ]ρατεγοὶ χρόσθο[ν φρ]άζοντες τῆ β[ολῆι καὶ ἀποδιδ]-
[όν]τες τὲν τεταγμέν[εν] τιμέ[ν], καὶ ἡο[ι ναυπεγοὶ δόντο]-
[ν το]ῖς τριεροποιο[ῖς τὰ τε]ταγμέν[α . . . 5. . . ?Ἀντιοχίδε]-
[ς καὶ] Φανοσθένης το[. 26.]

Lines 18-20:

[. . . 7. . .]σοραὶ, ἐπαιν[έσαι Ἀντιοχίδεν καὶ Φανοσθέν]-
[εν ὅτι ἐδια]κονεσάτε[ν. 24.]
[. . . 7. . . καὶ] προσάγ[εν] αὐτὸ τὸς πρυτάνες . . . 9. . . .]

Lines 23-27:

τι· ἐπα[ινέσαι τε αὐτὸς καὶ ἀναγράψαι προχσένος κα]-
ὶ εὐεργέτας. ἐν[αι δὲ αὐτοῖς] ἡευρέσθαι ἄλλο ἡὼν ἂν δέ-
ονται παρὰ Ἀθεν[αίον· ἀναγράψαι δὲ . . . 8. . . ἐν στέ]-
λει εὐεργέτας Ἀθ[εναίων ἐμ πόλει τὸν γραμματέα τῆς]
βολῆς

The inscription states that its purpose is to "commend (ἐπαινέσαι) Antiochides and Phanosthenes because of their service (ἐδιακονεσάτεν)" (18-19). Twice, in lines 24 and 26, it declares Antiochides and Phanosthenes to be benefactors (εὐεργέται). The decree orders this designation to be inscribed on a stele (25-26). Meanwhile, the newly imported oars are to be given to the *trieropoioi*, who in turn are directed to put them in the "shipbuilder's yard" (ναυπέγιον), where the generals (στρατεγοὶ) will have access to them (8-12).

This inscription has a statement of hortatory intention comparable to the ὅπως ἂν εἰδῶσιν πάντες ("so that all will know") of IG II² 276—an overt indication of the Athenians' attentiveness to matters of alignment. Unfortunately, it depends heavily on editorial restoration of the text. The phrase ἡόπος ἂν

φαίνεται Αθηναίων ὁ δῆμος ἡσὶς περὶ πολλῶ ποιόμενος τὸς ἐσάγοντας κοπέας (5-7) indicates that the Athenians wished to affect common knowledge through the decree. φαίνεται, "appear," is the key word; it would show a concern that Athens "appear to regard importing oars as doing much." This concern for how Athens appears would tie the decree to common knowledge. Unfortunately, φαίνεται is bracketed as an editorial suggestion. However, the formulaic nature of statements of hortatory intention (cf. Henry 1996), along with the stoichedon style of the inscription, makes a correct restoration more likely.

Even if one rejects the restoration, the inscription still indicates alignment. By honoring those who imported equipment for the navy, and by making this honor public knowledge through displaying the inscription, the honorary decree sent signals that individuals acting to benefit the navy could enjoy substantial rewards.

5. Conclusion

Operating the Athenian navy posed a series of logistical challenges. Foremost among these was the problem of cooperation. The navy demanded that the rich and the poor, citizens and slaves, and foreigners and metics work together. But the wealthy were compelled to make large financial contributions while the lower classes gained ground through *misthos*, giving rise to class strife. Therefore, many forces of alignment in Athens—that is, forces which aided in the

execution of state decisions through affecting common knowledge—attempted to smooth over barriers to cooperation by creating incentives and disseminating ideology. The practice of crowning trierarchs would motivate them with both honor and material gains. The naval infrastructure of Athens, such as the monumental ship-sheds, sent messages of commitment to the people.

The state also faced logistical challenges typical of operating any large fleet. The use of physical space, such as the orthogonal grid layout and walled-off naval zone of the Piraeus, would have aided efficient naval operations. When it came to manpower and equipment shortages, Athens still used honorary inscriptions to promote behavior that would aid the city.

Admittedly, some measures I have linked with alignment arose from desperate circumstances. That is certainly true of freeing the slaves of Arginusai, when desertion was a key concern. And Engen interprets the decree for Antiochides and Phanosthenes as a sort of backup plan: given Athens' military weakness and need for ship-building materials in the aftermath of the Sicilian expedition, it resorted to honorary measures (143). But even if these were atypical measures, it is significant that Athens fell back to these common knowledge approaches in times of crisis. The manipulation of common knowledge was a general strategy of Athens, one which the city relied on more or less depending on its need.

Most revealing are the expressions of hortatory intention. These are found in the honorary decrees, where someone is being honored not only for their own sake, but with the express purpose of motivating other people. But such language is not limited to the epigraphical domain. Demosthenes expresses the same idea when he is concerned with what the Boule will be "teaching everyone" (διδάξετε πάντας) about the trierarchy (51.22).

Thus, the idea of harnessing common knowledge on behalf of the navy permeated multiple sectors of Athenian public life. Athens employed knowledge-based strategies to overcome challenges of cooperation, and to move Athens' desires for its navy from the planning stage to execution. I have made no attempt at evaluating Ober's theories of aggregation and codification, or his broader claims of what ancient democracies can say about the modern world. Yet the effectiveness of alignment at providing a theoretical explanation of the navy—which was a crucial tool of foreign policy and a catalyst for democratic development—lends greater credence to rest of Ober's claims.

One might reasonably hold a final reservation: why did the system eventually falter? If Ober is correct that Athens' success was due to the effectiveness of its democratic government, why did it succumb to Macedonian power in the late fourth century? This question is especially relevant when examining the navy since, as Bosworth writes, "Athens lost the Lamian War at

sea," noting that Athens lacked sufficient manpower for its triremes (14). But this was not due so much to a failure of naval organization; Athens still managed to man a large fleet of 170 ships (Bosworth 16). Rather, Bosworth interprets Athens' loss as a result of the "practically unlimited resources" of the Macedonians (22).

While the collapse of both the democracy and naval power of Athens certainly deserves consideration, I have instead focused on how the city sustained the two for such a long time—the majority of the fifth and fourth centuries. Undoubtedly, some will advance historical counterexamples or nitpick over minutiae, but I feel that Ober's theory is mostly sound. The psychologist Daniel Kahneman has astutely observed that theoretical explanations do not strive for perfect accuracy, but rather for interpretive usefulness: "Richer and more realistic assumptions do not suffice to make a theory successful. Scientists use theories as a bag of working tools, and they will not take on the burden of a heavier bag unless the new tools are very useful" (288). Ober's theory should therefore be evaluated not only in terms of accuracy, but of usefulness. Until the defeat of 322 BCE, Athens' knowledge-based approach successfully overcame problems of coordinated action and kept the navy operational. The theory of knowledge alignment is a useful tool for understanding this success.

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