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THE ATHENIAN NAUKRAROI AND ARCHAIC NAVAL WARFARE

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Resumo

O objectivo deste artigo é analisar as evidências dos naukraroi atenien-
ses e do seu contexto social, bem como as naukrariai e seus dirigentes, os πρυτάνιες τῶν ναυκράρων. Procuraremos ilustrar esta instituição através
do que recolhemos sobre os primórdios da guerra naval. Essa investigação
conduzir-nos-á inevitavelmente a uma polémica problemática: a asserção de
Heródoto de que estes prutanies ou prutaneis (no dialecto ático) «adminis-
travam Atenas» e tinham desempenhado um papel relevante na morte dos
conspiradores cilónios no século VII a. C.

Palavras-chave: Naukraroi; Prutaneis; Atenas; naval; guerra.

Abstract

I propose to examine the evidence for the Athenian naukraroi and their
social context, and the naukrariai and their leading officers, the πρυτάνιες
tῶν ναυκράρων.1 I shall attempt to illuminate this institution through our evi-
dence about early naval warfare2. This inquiry shall inevitably lead to a no-
torious crux: Herodotus' asserted that these prutanies or prutaneis (in the Attic
dialect) «administered Athens» and played a role in the deaths of the Kylonian
conspirators in the late 7th century.

Key-words: Naukraroi, Prutaneis: Athens; naval; warfare.
Etymology and fundamentals

Our first inquiry concerns the basic nature of this institution. The term ναύκραρος is an archaic form of ναύκληρος «ship master», which was created through dissimilation of the r sound (a common phenomenon) and through a false etymology to κλήρος «allotment». Some late intermediaries do indeed tend to conflate naukraroi and nauklëroi. Both naukraros and nauklëros mean commander of a ship, since the first element of the word is derived from ναύς, and the Greek stem*kraros <*kraira <*kra-s- is derived from the Indo-European ker1 «horn». The same root is seen in κάρα «head». Associations with κραίνω «command» and with κραίρα «top» or «head» have also been noted. The term ναυκράρια is a feminine abstract built on ναύκραρος. Two points follow from this etymology. In the first place, the original naukraroi were simply ship-owners/captains. Weak social differentiation stood between merchant captain and warship captain because no sharp distinction yet existed between merchant galley and warship, and commerce as a vocation had not yet differentiated from other elite activities. Naukraroi became nauklëroi as social roles evolved. Having a ship as one's klêros «allotment» meant that one subsisted by seafaring, just as a farmer or colonist supported himself by cultivating his agricultural klêros. Time does not permit me to explore the ramifications of this semantic evolution. Yet, averring that one's livelihood was a ship constituted a significant ideological claim. It defied the prevailing early archaic normative system that restricted seafaring chronologically, subordinating it to the calendar of agricultural labor and connected religious rite. That had been the Hesiodic and Theognidean vision of subsistence. This willingness to claim naus asklêros is associated with emergence of new social groups like aeinautai «ever-sailors» at Miletos. However, the older term naukraroi was retained at Athens as the term for men officially providing warships for communal defense.

Secondly, while the naukraroi can be seen as officers of naukrariai and thus state officials, constituting an archê, their quasi-private or vocational character should be recognized. They began as Athenians able to offer ships for military purposes. This opens the possibility that the naukraroi in the various naukrariai may have varied in number depending on local economic conditions. Collected into units called naukrariai, they eventually had prutaneis as a «presiding» committee, who were presumably responsible for activating or coordinating naukraric activities. They were more obviously state officials, although we resist below the temptation to equate them with other archaic governmental organs. The naukraroi
must have been relatively numerous; otherwise, there would have been no necessity for prutaneis. There were perhaps several hundred men with sufficient requisite involvement in seafaring. In early Attica, the position of naukraros, like other political functions determined by social status, probably tended toward inheritability. Sons presumptively followed fathers. Later, one could dispute designation as a naukraros.

This etymology is disputed in recent scholarship, which sees its connection with ships as folk etymology. As an alternative, the first element of the word is to be derived from νάος «temple», and the naukraroi were temple officials.\(^6\) This interpretation is objectionable for its discarding both the explicit testimonia linking naukraroi to ships, and the persuasive etymology outlined above. By changing the meaning of naukraros, the evolution of the term nauklêros is also rendered opaque. Moreover, there are very few (and late) words with the first element vau- that relate to temples, and, in the Attic dialect, the element vau- exclusively forms words connected with ships and sailing (LSJ 1161-83; Supp. 103). Moreover, the phoneme vau- was among word elements well known to ordinary Greeks through wide usage in personal names\(^7\). There, vau- always means «ship», and the force of aural reinforcement in naming strengthened a maritime connotation for all other words with vau-. Therefore, using vau- to denominate an institution connoting anything other than ships and seafaring defies the principle of economy of reference in archaic public discourse. The idea of Billigmeier and Dusing (1981:15-16) that an etymological link with «temple» implies survival of a Mycenaean institution is farfetched, absenta single such parallel. The problems addressed by the hypothesis considering naukraroi temple officials are susceptible to other resolutions that preserve their maritime affiliations.

The etymology of their name suggests the naukraroi were an early archaic institution, developing before the concept of the nauklêros emerged. The appearance of their prutaneis in Herodotus’ account of Kylon would confirm this point, if only one could be sure that this tradition was not anachronistic. But they did precede Solon if Ath. Pol. 8.3 can be trusted. Although citation thereof laws, mentioning the naukraroi, as «Solonian» does not guarantee an actual link with that statesman – the qualifier merely connoting archaic Attic law – it probably vouches for their existence in the early sixth century\(^8\). A terminus post quem is irrecoverable, since visual evidence of combatant ships on Attic Geometric pottery is merely suggestive. A lexicographical tradition presents the naukraroi and naukariaias charged with providing ships\(^9\), and a fragment of the Athidographer Kleidemos may support this. He and his transmitter Photius connect naukariai with
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*summoriai (FGH 323 F 8; Phot. s.v. ναυκραρία*). These were possibly the 4th century trierarchic *symmories*, grouping affluent Athenians for joint provision of a trireme (see, e.g., Jacoby *FGrH* 3b, 67). Yet, the chronology of 4th century fiscal administration is controversial, so that the *eisphoric symmories* may be a preferable option (Thomsen, 1964 113-14; Jordan, 1975:12). Gabrielsen even discusses whether Kleidemos refers to a combined *symmoric* system covering trierarchies and *eisphorai* (1986: 33-37; 1994: 22-23). In either case, Kleidemos indicates that *naukrariai*, like both sets of *symmories*, were subsidizing Attic military expenditure. The principle of advance outlays in *symmoric* administration, such as those made by the *proeisphorontes*, may help activate this comparison (note Schubert, 2008: 56-57).

In the early archaic period, the ships of the *naukraroi* were vessels usable for warfare that belonged to Attic *oikoi*, *genā*, and perhaps phratries. The primitive *polis* did not as yet own fully public vessels, i.e., state procured, maintained, and utilized exclusively. The first *polis* ship was the sixth-century state galley, the *Paralos*. The *pentekontor* «fifty-oared vessel» was in use, and, ultimately, the trireme became increasingly important. A few individual Athenians would have owned *pentekontors*, utilized for piracy and long-distance trade, in the manner of the Aiginetans or the Phokaians in the western Mediterranean (Figueira forthcoming[a]). Even in the classical period, wealthy individuals like Kleinias, the father of Alkibiades, would still provide their own warships for campaigns (Plut. *Alcib. 1.1*). Nevertheless, let us not overestimate the number of warships in private possession. Athens had no strong tradition of *léisteia*, unlike Phokaia, Samos, or Aigina. Salamis did have such a tradition (Hes. fr. 204W, 44-51). Salaminian *léistai* might have been a factor for the *naukraroi*, but probably only after the flight of some Salaminioi to Attica, when Megara conquered their home in the late 7th century. A consideration of the two accounts of Plutarch on the Solonian recapture of Salamis (of which one should actually be credited to Peisistratos) imparts a sense of primitive early 6th century naval warfare in the Saronic Gulf regardless of lack of historicity in detail.

**The Naukraric system in the polis structure**

There is a temptation to envisage *naukraroi* and *naukraria* as virtually the same. That is problematic when one considers whether the *naukrariai* had a local or a personal character in the civic structure. Starting with
the Athenion Politeia, our sources do equate the naukraroi with demarchs and the naukrariai with demes, which hints at units determined, if only originally, by place of domicile. That Cape Kolias was a naukraria seems to imply that the naukrariai were organized geographically (Lex. Seguer. s.v. Κωλίας). An additional complication is that the naukrariai were associated in turn both with seemingly gentilician pre-Kleisthenic Ionian tribes and with geographically-based Kleisthenic tribes. Here I assume that Kleidemos' reference to Kleisthenic naukrariai is conclusive for post-Kleisthenic survival of the institution. Any impression from the Athenion Politeia that Kleisthenes entirely replaced naukrariai with demes is a result of abbreviation and emphasis. Only some naukraric functions were surrendered to the demes.

Let us start with pre-Kleisthenic naukrariai. The Athenion Politeia speaks of four Ionian tribes, each divided into three trittyes and twelve naukrariai. Pollux elaborates by observing that each trittys had four naukrariai. It is uncertain whether he had independent evidence for this idea. He or his source could have read into the twelve trittyes and forty-eight naukrariai an implication that the naukrariai were split among trittyes. Beyond their denomination «third», pre-Kleisthenic trittyes are one of the greatest obscurities of the Athenian constitution. One pre-Kleisthenic trittys is attested, the Leukotainiai «white-filleted» (LSCG Suppl. 10.41-6). That name suggests priestly activities, and seems improbable for a local entity. Arguably the pre-Kleisthenic trittyes were socio-functional and ideological, dividing Athenians into the traditional tripartite classes of Eupatrids, geõrgoi, and dêmiourgoi. Whether or not this supposition is credited, the Leukotainiai do not help much in understanding the naukrariai. Yet they do suggest that trittyes and the naukrariai were discrete subdivisions of pre-Kleisthenic tribes, just as they were of the later ten phylai.

The nature of the naukrariai derives from the functions of the naukraroi. Notwithstanding their official duties, the naukraroi were persons active in seafaring, and thereby must have been scattered along the periphery of Attica. So understanding the organization of the naukrariai within the tribes has to struggle with the concentration of the naukraroi in one region of Attica, the coastal lands. The single known naukraria is Kolias, which is to be identified with modern Cape Hagios Kosmos, taking its name from the elbow like shape of the coast at this point. Some have believed this identification strong evidence for the local nature of the naukrariai. Others have noted the existence of a genos Koliaidai (Hsch. Mil. s.v. Κωλίας), which may have taken its name from the landmark. The genos would then have given its name to a gentilician naukraria. That seems farfetched. In
order to perform their role as ship providers the naukraroi of this naukraria must in practice have collaborated in situ at Cape Kolias. We can perhaps identify a second naukraria. Kleidemos preserves a tradition that set the origins of Attic thalassocracy in a confrontation of Theseus and Minos. In its course, Theseus establishes a shipyard in the deme of Thymaitadai. This gratuitous mythological element probably establishes Thymaitadai as an archaic naval base, a naukraria.

Kolias was so tiny a place that it was not even given its own deme in the Kleisthenic system, but included in the small deme of Halimous that provided just three councilmen for the Boule. My hypothetical naukraria, Thymaitadai, is also small, with only two bouleutai. Note first what this implies about the scale of the Attic maritime sector: a community with two or three counselors constituted a forty-eighth or fiftieth of Athenian involvement with the sea. In addition, it is unlikely that everyone at a Kolias or a Thymaitadai drew his subsistence from seafaring. Paradoxically, identification of such small communities as naukrariai also tends to exclude a geographical character for the naukrariai. That is because it seems unreasonable to envisage a sizable block of territory extending inward from a Kolias or Thymaitadai in the shape of a quadrilateral with a short side lying along the shore. However, imagining that all the inhabitants at Kolias belonged to a single non-geographical Ionian tribe also seems incredible. And such small places could never have accommodated multiple naukrariai for the local members of different Ionian tribes. Thus, the identification of such naukrariai creates problems, whether they were personal or geographical entities.

To allay these concerns, we must distinguish between the naukraroi, the naukraria, and the members of the naukraria. The naukraroi were the leading men concerned with the sea in specific coastal communities, and they could only collaborate with their neighbors of similar situation. They did so regardless of tribal affiliation. Their focus of domicile gave a name to their naukraria. A Solonian law quoted from Aristotle and preserved in Photios has τοὺς ναυκράρους τούς κατά ναυκραρίαν. The preposition κατά should not simply equal the genitive here, but may well mean «connected with» or «involved with». Similar phrasing is employed when the Athenaión Politeía speaks of the naukraroi as a magistracy established ἐπὶ τῶν ναυκραριῶν «for» or «over» the naukrariai. Photios, again citing Aristotle, attributes to Solonian law the phrase ὅν τις ναυκραρίας ἀμφισβητῇ, «if someone disputes the naukraria». This implies that an assignment as naukraros approximated a liturgy, the eligibility for which one could contest.
The surprising conclusion following from my hypothesis is that the naukraroi need not have been members of the tribes whose naukrariai they served. The expenses and perhaps manpower requirements of the naukraria could only be satisfied by drawing upon a larger pool of citizens than those of the naukraric center. Not all the common members of a naukraria lived in physical proximity to the headquarters of its naukraroi. The naukrariai were aggregates of tribesmen inheriting their station as members of an Ionian phylē. Their main contribution to the naukraria probably consisted of making payments, the eisphorai mentioned in the Athenaion Politeia. Secondarily, citizens assigned to a naukraria may have supplied crew members, although the initial complement of any warship held at the ready probably came from the circles of association of the naukraroi themselves. Members of different naukrariai, as members of different Ionian tribes, were neighbors throughout Attica. The naukrariai were groups of a double character, local from the standpoint of their naukraroi and their ships, but personal from the perspective of ordinary participants in the naukraria. Since the hinterlands of the coastal naukraric centers differed significantly in topography, population density, and economic means, the burden of keeping a fleet needed to be spread from coastal areas far into the interior of Attica, and among all economic sectors. Otherwise, seafaring could become so enervated by warfare that Athens would suffer economically and, in the end, militarily as well.

Naturally, this rather idiosyncratic amalgamation of gentilician and local organization would have changed markedly with Kleisthenes. The naukrariai ceded tax-collecting and any supervision of registers and property of citizens to demes and their demarchs. Two additional naukrariai were added, but these could easily have been created at the Peiraieus and/or Phaleron. Clearly, five naukrariai in a tribe could not be coordinated with three trittyes. Thus the demarcations of the memberships of the naukrariai crossed the trittyes' boundaries. How the demes were assigned to individual naukrariai is less obvious. We might surmise that each Kleisthenic naukraria was centered on a Kleisthenic deme of the Paralia, and some large demes might even have harbored multiple naukrariai. One supposition is that other contiguous demes were then added until an aggregation of citizens equaling around ten bouleutai was reached. In that case, our customary reconstructions of Kleisthenes' legislation would have to be rethought, because it is a much more complex process to assign both demes and naukrariai to phyla than allocating demes alone. Anyone can establish this for themselves by taking a copy of John Traill's map of the Kleisthenic demes (Traill, 1975) and trying to overlay fifty naukrariai on it.
Therefore, it is tempting to conjecture that Kleisthenes did not try to reconcile assignment of fifty naukrariai to phyla with the geographic demarcation of trittyes and demes. The pre-Kleisthenic naukrariai were assigned to Kleisthenic tribes, five each, and Kleisthenic demes of that tribe were allocated to the naukrariai without regard to their location, so that each naukraria drew on demes encompassing ten bouleutai. Therefore, pre-Kleisthenic Attica was a finely detailed mosaic comprising citizens from different tribes and naukrariai; post-Kleisthenic Attica a jigsaw puzzle of demes allocated to various naukrariai.

It is quite unclear when Athenian census quotas, originally defined in terms of natural products, were given monetary equivalents (Ath. Pol. 7.3-4; Pollux 8.130). Thus, because some early archaic naukraroi drew on non-agricultural subsistence activities for the majority of their income, appointment as a naukraros differed fundamentally from sociopolitical classification in the agrarian Solonian telē. The naukraroi are usually assumed to have belonged to the traditional aristocracy or the two highest census classes, but that is not necessarily true (cf. e.g., Bravo, 1977: 27-30; Valdés Guía, 2002: 72). Some may indeed have rated as Pentekosiomedimnoi and Hippeis only by plausible self-designation or if non-agricultural income were taken into account. Some were perhaps merely zeugitai even in these terms. Yet, many 6th century naukraroi were legally thetes because of their basically non-agrarian assets and income. Therefore, it is hard to imagine the operations of the naukrariai being conducted through the other, that is, gentilician units of the politeuma, like phyla, phratriai, and genē.

Military functions of the naukraroi

Let us explore how the naukraroi may have functioned militarily. By the sixth century, the naukraroi were persons from families otherwise involved with seafaring who had the experience to equip, man, and handle ships. They had been granted by the polis the authority to muster men and to collect taxes to these ends. They needed to acquire the material to build the ships, especially the long timbers for keels and masts, which were in short supply in Attica. They supervised shipbuilding themselves. Because the Peiraeus had not yet developed as a center for naval construction, ships were probably built in various places along the coast by workers who may have sailed for their livelihoods, sometimes in combination with other subsistence activities. Recall the mythological exemplar of Theseus building ships for use against the Cretans at Thymaitadai (Kleidemos FGrH 323 F17).
Compared with ship procurement, the manning was an equal or more substantial task. Being a rower was not yet a salaried occupation. Without a pool of workers for hire, ships could only be manned through clientage or local affiliation. In this context, there was unlikely to have been any process for training rowers as a craft, turning men with no experience of seafaring into sailors. This was quite unlike the classical period, where a poor Athenian learned to row in a trireme and crews learned to coordinate rowing by being maintained at sea at public expense. In archaic Athens, each man who owned a ship for piracy, fishing, or trade had a circle of associates (family members, retainers, neighbors, or even slaves). Only individuals with such circles of affinity could probably serve as naukraroi.

The shipbuilding and personnel responsibilities of the naukraroi grew over time. According to Thucydides, the trireme was invented at Corinth in the late eighth century (Th. 1.13.1-4). Although a vessel with three tiers of rowers was a significant technological advance, it imposed greater costs and required much higher rates of mobilization. Pentekontors needed fifty-five to sixty men, while triremes demanded at least two hundred. The naukraric system implies a minimum of forty-eight ships. A minimal fleet mixing pentekontors and smaller triakonters required c. 2,300 sailors. A trireme fleet of the same size, however, called for 9,600. Unlike the Sicilian tyrants and the Corcyreans, as Thucydides observes (1.14.2-3), the Athenians and their enemies on Aigina were slow to convert to triremes. Triremes and pentekontors were not easily deployed in the same battle line because of different speeds. The tyrants had unusual capacity to conscript large numbers and hire mercenaries, while the Corcyraean elite was heavily involved in seafaring. At Athens, the quasi-public/private character of the naukraroi made procurement of a fleet in a predominantly agrarian state feasible, but militated against the trireme in favor of the pentekontor. Thucydides vouches for the continued late archaic use of the pentekontor in the Athenian fleet (1.14.3).

Because of their enmity, the Athenian and Aiginetan navies grew in conjunction, with the early advantage inclined toward Aigina. Our data are scarce, but a few observations are possible. The Aiginetans likely had fifty to sixty triremes in 519, when they fought the Samians at Kydonia in Crete (Hdt. 3.44.1-2, 59.3). The Athenians probably had at least forty triremes in 498, when they dispatched twenty to assist the Ionian rebels (Charon FGrH 262 F10; cf. Hdt. 5.99.1). In the early 480s both navies were well matched, with over seventy triremes each. An expeditionary force of 70 triremes entails a massive mobilization, requiring at least 14,000 men. Thereafter, the naval law of Themistokles permanently altered the
balance of power between the two poleis in favor of Athens, but it also ended the naukraric system.

These remarks reveal my position on the relevance of the number of the naukrariai to the size of the Athenian fleet. That there were only 48 naukrariai in the 6th century and 50 under the Kleisthenic constitution makes it improbable that the institution could ever have supported the navy of democratic Athens with its hundreds of triremes. Yet it is also improbable that the naukrariai ever limited Athens to only 48 or 50 ships. In that case, it would be hard to understand how the introduction of the trireme could have been handled or how a mixed complement of pentekontors and triremes was maintained. The Athenian squadrons used at Aigina and Paros in the early 480s already numbered 70 ships (Hdt. 6.86, 132), a strength out of alignment with the number of naukrariai. Kleisthenes only increased the 48 Solonian naukrariai to 50, making a minor adjustment to fit his new tribal system. If there was strict linkage between the number of naukrariai and fleet size, we might rather expect Kleisthenes to have increased their number markedly to reflect the economic and demographic growth of Peisistratid Athens. Managing the size of the fleet is probably a reason why the prутaneis of the naukrariai existed. Possibly, they had to help allocate equitably among the naukraroi tasks of procurement and maintenance of ships—in proportion to the number of naukraroi in various naukrariai?—after the archons (and later the stratēgoi), endorsed by the ekklēsia, decided how many ships and in what types Athens needed and could afford.

Pollux states that naukraria δ’ ἐκάστη δύο ἵππεας παρεῖχε καὶ ναύν μίαν, ἀφ’ Ἡς ἴσως ὤνόμαστο, «each naukraria provided two horsemen and one ship, from which perhaps it was named». The word ἴσως seems to mark the last clause as lexicographical speculation, although probably correct. That every naukraria provided two cavalrmen and one ship might be explained merely as the force that each had to keep at the ready. Pollux follows his notice on the naukrariai (which are introduced to explain demarkhoi) with an explanation of trittuarkhos and trittys wherein, schematically and improbably, a trittys is assigned 30 genē. He then goes on to name the Athenian tribes under Kekrops, Kranaos, Erikthonios, Erekhtheus, and Alkmaion, this last perhaps reflective of Kleisthenes. These elements appear to have been culled from a treatment of the archaic Attic politeia, one resembling but distinct from the Athenaion Politeia. Pollux establishes 96 or 100 horsemen for the mounted troops of 48 or 50 naukrariai. This small body of horsemen was not the 6th century Attic cavalry, which probably never numbered less than 300. Potentially,
Athenian mounted soldiers would have included an able-bodied man from each oikos of the two highest census classes, the Pentekosiomedimnoi and the Hippeis. Rather, the horsemen of the naukrariai would have had a role in naval defense. They were probably used as messengers to alert other naukrariai and neighboring communities of a hostile incursion. With naukraric centers and members of naukrariai scattered throughout Attica, there had to be some mechanism to disseminate news of threats and to summon assistance in haste.

The naukraroi were supplanted by the demarchs, who kept registers of those liable for military service. A similar function for the naukraroi might have existed. Although it is unlikely that archaic Athens had a complete enumeration of the thetic class, the naukraroi may still have had records of persons available for service in ships' crews. They could doubtless have had lists of hoplites for service as epibatai «marines». The composite document that we call the «Themistokles Decree» (Meiggs-Lewis #23) was probably synthesized from genuine Attic enactments of 480. Lines 29-30 indicate that the ληξιαρχικά γραμματεία, the deme registers of citizens for military service, might already have existed in 480.

The naukraroi as financial officials

In state finance, the naukraroi had important responsibilities. Athenaiion Politeia 8.3 speaks of the ἀρχή «magistracy» of the naukraroi as «tasked» (τεταγμένη) for ongoing εἰσφοράς 'capital taxes' and δαπάνας «expenditures». The Athenaiion Politeia goes on to quote from pertinent Solonian laws: τοὺς ναυκράρους εἰσπράττειν «the naukraroi exact», and ἀναλίσκειν ἐκ τοῦ ναυκραρικοῦ ἀργυρίου, «to spend from the naukraric silver». Pollux refers to the same activity: τὰς δ' εἰσφορὰς τὰς κατὰ δῆμους διερχόμενους οὕτως, καὶ τὰ ἐξ αὐτῶν ἀναλώματα «they used to vote on the eisphoras involved with demes, and the expenditures from them». Similarly, Hesychius notes that the naukraroi were οἱτινες ἀφ' ἐκάστης χώρας τὰς εἰσφορὰς ἐξέλεγον, «the very ones who collected the eisphoras from each place». Moreover, a fragment of Androtion establishes that the κόλακρεται are to give ἐφόδιον «travel provisions» ἐκ τῶν ναυκραρικῶν «from the naukrrarika [naukraric funds]» to theóroi to Delphi. Androtion is also a possible source for the Solonian laws cited in the Athenaiion Politeia.

In their fiscal aspect the naukraroi are juxtaposed with the demarchs. Kleisthenes established demarchs with the same ἐπιμέλεια
«responsibility» as the former naukraroi, as the Athenaios Politeia notes and lexicography emphasized\textsuperscript{34}. Now these laws appear to reflect an embryonic monetary economy with the specifications ἐκ τοῦ ναυκραρικοῦ ἀργυρίου, ἐφόδιον, and ἐκ τῶν ναυκραρικῶν. Therefore, one must be reluctant to envisage a Solonian or early archaic date in the form in which they were ultimately cited (cf. Bravo, 1977:27-30). The revision of the laws had to reflect a fiscal progression in which the naukraroi moved from handling both levies in kind and weighed bullion, through pre-monetary media, to early coined money.

However, one cannot help understand the financial responsibilities of the naukraroi by emending Herodotus, as Jordan has argued, to read that the naukraroi ἐνέμοντο «drew revenue» from Athens\textsuperscript{35}. This accepts an inferior manuscript of Herodotus, while failing to justify the middle voice of the verb, which means «to extract revenues for one's own benefit»\textsuperscript{36}. This revision makes even less sense representing a tradition on suppression of the Kylonians. Their fiscal authority hardly alters the allocation of culpability. Jordan's scenario tends to complicate that murky issue by adducing ad hoc details outside Herodotus (e.g., putative prutanic retaliation for Kylonian plundering of the sanctuary). An extension of this hypothesis is the unlikely theory that the prutaneis were the earliest supervisors of the treasures of the cult of Athena on the Acropolis, occupying the role later held by the tamia\textsuperscript{P7}. A conflation of treasurers and military financial officials does not withstand historical analysis\textsuperscript{38}. The former preserved dedications that in all but utter crisis times were expected to accrue; there is no evidence that they regularly dealt with a budgetary cycle, military subsidies, or the conversions required to utilize dedications in warfare. The naukraroi seem to have made actual preparations for belligerency, trying to raise the funds to defray them, in all likelihood retroactively.

The comparison of demarchs and naukraroi is primary, while the parallel between demes and naukrariai is somewhat in the background. Hesychius and Pollux give the number of naukrariai one for each naukraria, but this is probably an inference from the analogy with demarchs, who individually presided over their demes\textsuperscript{39}. This specification is joined with the suspect idea that the naukrariai were allocated to trittyes. Yet, as suggested above, the existence of πρυτάνιες τῶν ναυκράρων argues for more than twelve naukraroi. This interpretation is also supported by the references to the naukraroi compiled by the Peripatetics, where multiple naukraroi for each naukraria are indicated by phrases like τοὺς ναυκράρους τοὺς κατὰ ναυκραρίαν (Photius) and, probably, ἐπὶ τῶν ναυκραριῶν ἀρχῆ καθεστηκυῖα ναύκραροι (from the Athenaios Politeia)
The *eisphoriai* of classical Athens were the much resented emergency levies on capital, made primarily for military expenses. Thucydides speaks of the *eisphora* of 428/7 as in some sense the first (3.19.1). Alternatively, he meant that Athens revived the *eisphora* then, in other words using it for the first time in the Peloponnesian War, or that it first yielded two hundred talents. Thomsen doubted that there was truly a *naukrariceisphora*, suggesting that Peripatetic tradition postulated it on the basis of the term είσπράττειν in the law of Solon quoted by the *Athenaion Politeia*\(^\text{10}\). However, the phrase πρός τε τάς εισφ οράς καί τάς δαπ[άνας] τάς γιγνομένας seems to be official language. Accordingly, Pollux and Hesychius follow Peripatetic tradition when they too speak of *eisphoriai*. There seems no good reason to doubt that the *naukraroi* maintained whatever early lists of property that archaic Athens kept. Hence Hesychius could describe themas levying *eisphoriai* ἀφ’ ἐκάστης χώρας. Quite possibly such registers only preserved a record of assignment of the members of a *naukraria* to the four Solonian census classes. Thomsen and Ostwald emphasize that the term *eisphora* probably establishes the intermittent character of *naukraric* exactions, while for Ostwald the term *telos* for a Solonian class presupposes such payments\(^41\). The Peisistratid levy on production may well have been raised on the basis of the information about holdings held by the boards of *naukraroi* (Th. 6.54.5; *Ath. Pol.* 16.4). I would stress the probable *ex post facto* nature of *naukraric eisphoriai* (cf. Schubert 2008, 55-59). Somewhat like trierarchs in the classical period, *naukraroi* probably undertook necessary expenditures up front and then tried to recoup their outlays afterward. Hence Pollux speaks about the *naukraroi* voting (διεχειροτόνουν) on *eisphora* and expenditures (άναλώματα).

Thus the *naukraroi* also supervised expenditures. These duties presumably involved ship procurement and conducting military operations through sustaining naval personnel, although our sources are unfortunately mute. Other officials, including the important board of the *kôlakretai*, stood downstream of the *naukraroi* in the flow of public funds toward final recipients. According to Androtion, the *kôlakretai* provided travel subsidies to *theóroi* to Delphi out of the *naukraric* fund. Provision for sacred embassies would have been among the earliest financial responsibilities of the *polis*. Many *theóroi* travelled by sea, carried by the Athenian state galleys, the Paralos first, later joined by the Salaminia. Perhaps the *prutaneis* of the *naukraroi* collectively supervised the state galleys.

The title *kôlakretai* means «collectors of the limbs», referring to sacrificial animals, so that early duties included management of apportionment of meat from sacrifices belonging to the *demos*. In a pre-monetary
society, the value of sacrificial meat (and other ritual comestibles) was an important component of all goods redistributed through the «state». From this role, the kölakretai evolved into officials responsible for the supervision of state expenditures (Rhodes, 1981: 139-140). We cannot tell from the fragment of Androtion whether the kölakretai had always funded theõroi from the naukraic treasury. It cannot be excluded that subsidy of the theõria passed to the kölakretaiat some juncture, after having been the exclusive province of the naukraoi previously. Speculating on their other interactions with the naukraoi is futile. The appearance of the word ἀργύρια here might suggest that the surviving formulation of the rule of subsidization of theõroi refers to coined money, so that provision could not be earlier than the end of the sixth century. Broad early authority for the naukraoi would fit the characterization of their functions in Ath. Pol. 8.3. Therefore, the kölakretai may have assumed some fiscal duties of the naukraoi when coinage was becoming more prevalent in the later 500s and financial management became thereby more complex. The reforms of Kleisthenes would offer a context.

Some other financial duties of the naukraoi are more obscure. A gloss of Photius and a differentiation of Ammonius have them leasing public property. This would be another aspect of their role as supervisors of the property holdings in Attica. Secular public property would not derive from dedications, which would go to the benefit of individual cults and be handled by tamiai, but from expropriations from those subjected to confiscations. A scholion to Aristophanes seems to give the naukraoi authority over recalcitrant debtors, although the Greek is difficult and may relate to the attested process by which later demarchs compiled apographai of forfeited properties. Some have understood from Σaristoph., Nubes 37b (Koster), that the naukraoi marshaled the Panathenaic procession, but this may be a distortion based on the role of the demarchs. If the archaic naukraoi were indeed involved, that might explain the carriage of Athena’s peplos on a ship’s mast (Paus. 1.29.1; Suda s.v. ἱστός καὶ κεραία; Harpocrate s.v. τοπείαν).

The rationale in social analysis for the financial functions of the naukraoi is manifest. Maintenance of a fleet would have been the major ongoing fiscal activity of an early polis, demanding aggregation and disbursal of appreciable resources, whether in silver bullion, products, or coins. Other state functions were less asset-intensive. The land army was provided by citizen farmers, who did not receive subsistence support. Ritual activity was the responsibility of priestly personnel or, in the case of certain state cults, was underwritten through dedications, production
from cult property, cult levies, and, eventually, elite liturgies. The judicial apparatus and most routine official activities were supported by elite office-holders themselves. Sanctuaries were embellished by cooperative civic efforts, assisted by conversion of dedications. These activities were supervised by *tamiai* «treasurers». The limited spectrum of state expenditure was balanced by a slight arsenal of taxes. Until the very end of the sixth century, coinage, and especially fractional coins, circulated in modest amounts. This circumstance greatly restricted efficiency of collection for the indirect taxes on which *poleis* depended. Sales taxes, import duties, and harbor tariffs were cumbersome without coins to provide a scale of value and a means by which fractional values could be sequestered for governmental use. The tasking of the *naukraroi* with public finances illustrates a principle of early *polis* organization in which state organs were shaped by their most demanding responsibility, in this case, provision of a fleet. Less demanding duties, such as subsidizing sacred embassies, in this instance, are appended in a process of economy of administrative energy. Similarly, on Aigina, the authority for the main archaic mint seems to have been associated with the fleet.

The *prutaneis* of the *naukraroi*

We must first recognize our difficulty in interpreting the *prutaneis*, with only the single explicit attestation of Herodotus to assist us (5.71.1-2). We cannot answer so basic a question as whether each *naukraria* appointed its own *prutanis* or in what other way they were selected, or, alternatively, whether there was a *prutanis* (or two?) for each tribe. By their title, the *prutaneis* could have been the superiors of the *naukraroi* – *n.b.* not of the *naukrariai* – or they could merely have been those *naukraroi* who were presiding out of the whole body of *naukraroi*. There is no suggestion that they performed the main functions with which our discussion has dealt: construction and provision of ships, mobilization of manpower, maintenance of property registers, levying of *eisphorai*, and expenditures on naval matters. Interestingly, the *Lexicon Seguerianum* has the *naukraroi* subordinated to the *polemarch*, not to their own *prutaneis*. That implies that the *polemarch* actually commanded the *naukraric* ships. Just on common sense grounds, one might assign to the *prutaneis* a role in exaction and disbursements of public funds. It seems more efficient to suppose that four, eight, even possibly forty-eight/fifty *prutaneis* handled conveyance of money to the *kôlakretai* than envisioning perhaps several
hundred naukraroI undertaking such tasks. While the archons and later stratēgoi, whose actions were endorsed by the ekklēsia, presumably determined the size and composition of squadrons and their use, the prutaneis probably collaborated in the supervision of the naukraroI in their activities, including exactions and expenditures. Another role may have been to help the polemarch in designating the naukraroI, just as the later stratēgoi named the trierarchs. There is no evidence for another assembly or council of naukraroI. Herodotus' notice on the suppression of the Kylonians is probably warrant for the presence of the prutaneis in the asty, where they were permanently on call to handle exigencies. They may have dined in the pytaneion with the other officials, that is, the other prutaneis in the general sense of the term, first and foremost the archons.

Although the archons may have convened with prutaneis by virtue of their presence in the asty, one need not proceed to speculate that the prutaneis formed a council, either a forerunner or rival of the Areiopagos or perhaps the body of fifty-one ephetai with three archons (cf. IG I3 104.13, 18; Plut. Solon 19.3-4). Nor ought one follow Wüst in believing the prutaneis to be the archons themselves. As we have seen, Jordan expanded his theory concerning the financial preoccupations of the naukraroI by making them predecessors of the tamiai, so that their presence on the Acropolis during the Kylonian coup is understandable. Rather, let us view the prutaneis as genuine obscurities and not merely another set of magistrates about whose nature Herodotus was misled. At the worst, his informants probably tried to divert blame for the Kuloneion agoS by obfuscation.

The permutations of interpretation of the Kylonian coup d'état are so numerous that I cannot to hope to exhaust them here. Rather, I offer resolution in light of my reconstruction of the naukraroI. In the Herodotean account of the murder of the Kylonians, the prutaneis are the alternative choice for culpability. It has been thought that they might have mustered hoplite forces (Hignett 1952 71). This seems a more likely assignment for the polemarch and his assistants, including the phylarchs if they as yet existed. An enemy marching by land would usually have given the Athenians ample warning of his onset. Most sudden incursions would have come from the sea. The naukraroI and their prutaneis were likely responsible for rallying ships and sailors. The two horsemen of each naukraria provided a mechanism for doing so among each other and for alerting the prutaneis. When Kylon seized the Akropolis, no one would have immediately known whether his action was timed to coincide with an attack on Attica by his father-in-law, Theagenes, tyrant of Megara. Athens
and Megara were notoriously in conflict in the late 7th century over Salamis and the Eleusinian borderlands. When the naukraroi had gathered their forces against Kylon, the prutaneis, present in the asty, may have taken charge in the absence of the polemarch (cf. Lambert 1986 112). Hence, the prutaneis were in practical command of the Athenians rallying to blockade the Acropolis.

In the alternative version on the execution of the Kylonians by Thucydides, the archons are responsible for their murder (Th. 1.126.1-11). On a first level, Thucydides established the overall authority of the archons, probably in tacit correction of Herodotus. Then there are notorious difficulties. The nine archons seem to act collectively, in a situation where the 7th century archon and/or the polemarch would probably have predominated. The archons are also empowered by grant of the people, who tire of the siege of the Acropolis. Thus, the Athenian army acts rather like the 5th century ekklēsia in continuous supervision of military operations. If the prutaneis of the naukraroi took charge of the Acropolis siege as the Athenians were massing and awaiting the arrival of the archon and the polemarch, then the variants of Herodotus and Thucydides differ mainly about timing. Thucydides is probably correct that the archon, Megakles, made the crucial decision to execute the Kylonians, to which his colleagues likely assented. Herodotus can be read as implicitly admitting Megakles/Alcmeonid responsibility for the executions. However, he would acquit them of pollution because the prutaneis had given guarantees to the Kylonians. Thus, Herodotus might have received from informants, hoping to mitigate the guilt of Megakles, an exaggerated appraisal of the authority of the prutaneis. Thus, «...οἱ πρυτάνιες τῶν ναυκράρων, οἱ περ ἐνεμον τότε τάς Ἀθηνας...», the prutanies of the naukraroi, the very ones who administered Athens then.49 In 1985, I raised, but was skeptical over, the possibility that τότε here can mean simply «at the time during the siege». Lambert, however, embraced this idea in same year and same journal50.

The supersession of naukraroi and naukrariai

It was Themistokles' naval legislation that superseded the naukraric system.51 Themistokles directed the surplus of mining at Laurion to an expansion of the fleet, legislation that provided it be subsidized from general revenues. The specific responsibility for command and stewarding of funds now fell to the wealthiest Athenians, without regard to their economic affiliations. One tradition on the Themistoklean naval bill has
the mining surplus entrusted to one hundred wealthy individuals in order to provide triremes (Ath. Pol. 22.7). While there are problems in interpretation, especially concerning the motif that the purpose of the grants was not made explicit, the tradition does appear to signal the first appearance of what would become the trierarchic system. There is no evidence that the naukraroi played any role in Themistokles' legislation. Nor are they attested during the campaigns of Xerxes' invasion. When the eisphora was revived, whether during the First Peloponnesian War or during the great Thucydidean war, it had become an extraordinary wartime tax.

By the early fifth century, the naukraroi had outlived their usefulness. The groups of naukraroi were scattered around Attica. However, as Athens traded more and more by sea, Attic shipping must have become concentrated in the Saronic Gulf. As early as 506/5, the Aiginetans had begun their campaign of raiding coastal Attica with a surprise attack on Phaleron (Hdt. 5.81.3, 89.2). This suggests that Phaleron was already the chief Attic naval base. In 493/2, during his archonship, Themistokles commenced conversion of the Peiraeus into a naval stronghold meant to replace Phaleron (Th. 1.93.1-2). During the years of the «Heraldless War» with Aigina, the greater part of the Athenian fleet was probably concentrated at Phaleron or the Peiraeus to meet Aiginetan threats and to threaten Aiginain turn (Hdt. 5.81.3 with Figueira 1993, 133-39, 410). Yet, when the Athenians set off to rendezvous with Nikodromos, the dissident Aiginetan aristocrat, their mobilization miscarried (Hdt. 5.88-89).

They had intended a surprise attack on the asty of Aigina in conjunction with Nikodromos and his followers from the démos. The rebels duly rose up and seized the Astypalaia «Old-Town» of Aigina. But the Athenians failed to arrive at the agreed time, being stymied by their last minute discovery of a shortage of «battle-worthy» ships. That indicates a failure in ship maintenance, probably by the naukraroi. The failure to exploit the populist uprising at Aigina was probably a strong argument in support of Themistokles' proposed reforms. The ships built from the Laurion surplus were explicitly to be employed against Aigina (Hdt. 7.114.1-2; Th. 1.14.3).

External to this evidence from the naval bill, there are other indications of Themistokles' hostility toward the Aiginetan oligarchs (Figueira, 1993: 143-146).

One echo of the controversy over this issue may be an ostrakon, Agora 17.1065, bearing an elegiac couplet hostile to Xanthippos, the father of Perikles. Here I follow my earlier exegesis from 1986 (revised in 1993: 151-72). The couplet observes that Xanthippos did the most adikia of the «accursed» prutaneis. The prutaneis of the Boulê are not
attested until after the reforms of Ephialtes, so that it is doubtful that they existed in the 480s (1993: 161-163 ~ 1986:267-270). One *prutanis* out of fifty would hardly seem capable of engendering such animosity. The term *aliteros*, «accursed», suggests someone whose extreme criminality has adopted a religious dimension. One doubts that the man who scratched this *ostrakon* composed the couplet himself, which probably served as a mnemonic from an ostracism campaign against Xanthippos in 484. One voter was so impressed that he took the trouble to record it. That Xanthippos was a *prutanis* of the *naukraroi* makes good sense on the eve of Themistokles’ naval legislation. He could be accused of the failure of the fleet preparation before the surprise attack on Aigina, from which so much was expected. As a *prutanis*, Xanthippos may have attempted to uphold the *naukraric* system in the face of Themistokles’ innovations, protecting an important political asset. If my interpretation is correct, the *ostrakon* is further evidence both for the continued existence of the *prutaneis* of the *naukraroi* in the early 5th century and for the termination of the *naukraric* system by the Themistoklean naval reforms. Such existence may also be substantiated by the appearance of the *prutaneis* in the narrative about Kylon in Herodotus because his informants might well not have invoked an office that had not existed in living memory (Hignett, 1962: 69).

**Conclusion**

Land warfare differed from sea warfare in its dependence upon a hoplite phalanx composed of small-holders. At least after Solon, the latter would have been of the zeugite census rating, and would have had certain political rights like participation in the *ekklēsia* and holding minor offices guaranteed to them. Doubtless the *naukraroi* themselves were men of some means and often of the zeugite status, if not in some cases higher (if total income were to be measured). Their influence on the political process through service in the fleet will have been reduced by the *naukrariai* dividing their influence and the board of *prutaneis* supervening. Although dealing mainly with the archons and later *stratēgoi*, the *prutaneis* may have also intermediated with other governmental organs, like *ekklēsia*, Areiopagos, and the Solonian boulē, if it truly existed. If my interpretation of the Xanthippos *ostrakon* is correct, it was elite *prutaneis* like Xanthippos (and possibly his father Arifhron) who exploited the *naukraric* system (1993: 169-171). The ordinary sailor, especially if he were a *thete*, would have been insulated from political influence, since his participation in the ship's
complement was primarily dependent upon his private connection with the *naukraros* ship commander. By the same token, the entire manpower of Athens was not thereby readily available for naval warfare, but only those already connected with maritime activity. Hence, in archaic Athens rowers did not become an interest group. Their influence was buffered in a populist state to achieve a result approximating more oligarchical states, more dependent on commerce and their navy. There was no movement toward the *nautikos okhlos* of the Athenian hegemony, since ship procurement, manning and command was still quasi-private/public.

The *naukraric* system typifies the mechanisms of the late archaic *poleis* to utilize the economic resources of the whole community for naval warfare. Elsewhere, I have classified such systems as «mixed» regimes in order to highlight their fusion of different economic sectors and to distinguish them from other models for early naval warfare (Figueira, forthcoming[a]). The «mixed» regimes certainly differed from navies which were amassed by the amalgamation of the ships of elite *léistai* «brigands»/merchant entrepreneurs, such as those of the Aiginetans and Phokaians. Such forces were heavily dependent on numbers of *pentekontors* with which they could strike quickly. I also distinguish some early, mainly trireme navies, such as that of Corinth under Periander, which enjoyed high state expenditures for shipbuilding and facilities and exploited the high level of conscription that strong tyrannical authority afforded, but which may have suffered from slowness in reaction. Furthermore, I classify the navy of Samos under the tyrant Polykrates as another «mixed» naval regime.

A distinction may also be profitably made between a *naukraric* and a trierarchic system. Trierarchs were wealthy members of the elite who were tasked with naval command and maintenance without the vocational connection with the sea possessed by *naukraroi*. In the context of the 480s, they were probably, on average, much more affluent than ordinary *naukraros*. A trierarch received his ship from the state. When it was lost at sea or in battle, he was not responsible for replacing it unless he was found negligent. Since *naukraroi* supplied the state with ships, despite any safeguards and the shared responsibility of the whole *naukraria*, the risks of combat at sea during the *naukraric* system must have rested more heavily on the maritime segment of society and its prominent individuals and families. The Athenians may have faced the problems of many societies that conscript ships, namely the reluctance of their captains to risk their peacetime livelihoods. The trierarchic system allowed for central storage, maintenance, and protection of the fleet. It brought the status of ships under the direct scrutiny of the *stratêgoi*. The *naukraric* system may
well have occupied an importance place in the ascent of Athens toward thalassocracy in the eastern Mediterranean, but it could never have served as the mechanism that achieved thalassocracy.

Evidence

Ammonius De adfinium vocabulorum differentia 330: ναύκληροι καὶ ναύκραροι· διαφέρουσιν. ναύκληροι μὲν γὰρ εἰσὶν οἱ ναὺς κεκτημένοι, ναύκραροι δὲ οἱ εἰσπρασσόμενοι τὰ δημόσια κτήματα. καὶ ναυκράρια οἱ τόποι ἐν οῖς ἀνέκειτο τὰ κτήματα. ἐλέγοντο δὲ ὀμοίως ναύκληροι καὶ οἱ μισθωτοὶ τῶν συνοικιῶν.

Androtion FGH 324 F 36 (ΣΑριστόφανος, Αἰνεία 1541): τὸν κωλακρέτην, τὸν ταμίαν τῶν πολιτικῶν χρημάτων. Ἀριστοφάνης ὁ γραμματικός τούτους ταμίας εἶναι φησὶ τοῦ δικαστικοῦ μισθοῦ, οὐ μόνον δὲ τούτοι τὴν ἐπιμέλειαν ἐποιοῦντο, ὡς φησὶν, ἀλλὰ καὶ τὰ εἰς θεοὺς ἀναλισκόμενα, διὰ τούτων ἀνηλίσκετο, ὡς Ἀνδροτίων γράφει οὕτως: “τοῖς δὲ ιούσι Πυθώδε θεωροῖς τοὺς κωλακρέτας διδόναι ἐκ τῶν ναυκραρικῶν [mss.: ναυκληρικῶν] ἐφόδιον ἀργύρια, καὶ εἰς ἀλλοί δὲ τί ἄν δέη ἀναλώσαι.”

ΣΑριστόφανος. Νυμβες 37b (Scholia in Aristophanem 1.3.1 Holwerda): οἱ δήμαρχοι οὕτως τὰς ἀπογραφὰς ἐποιοῦντο τῶν ἐν ἐκάστῳ δήμῳ χωρίοιν, καὶ τὰ ληξιαρχικὰ γραμματεῖα παρ’ αὐτοῖς ἦν, συνηγόν τοῦ τούς δήμους, ὄτε δέοι, καὶ ψῆφον αὐτοῖς ἐπεδίδοσαν, καὶ ἐνεχυρίαζον. 37c: ὅνομα πολιτείας οἱ δήμαρχοι παρὰ τοῖς Ἀθηναίοις οἱ πρώην ναύκραροι καλοῦμενοι οἱ ἐνεχυρίαζοντες τοὺς ἀγνώμονας τῶν χρεωτῶν.

ΣΑριστόφανος. Νυμβες 37b (Scholia in Aristophanem 1.3.2 Koster): Ἀριστοτέλης δὲ περὶ Κλεισθένους φησι· “κατέ στήσε καὶ δημάρχους τὴν αὐτὴν ἐχοντας ἐπιμέλειαν τοῖς πρότερον ναυκλάροις· καὶ γὰρ τοὺς δήμους αὐτῶν ναυκλαριῶν ἐποίησεν.” οἱ πρότερον ναυκλάροι, εἶτε ὕπο Ἀθηναίων κατασταθέντες εἶτε καὶ πρῶτον ... οὕτως δὲ τὴν πομῆν τῶν Παναθηναίων ἐκόσμου Κλεισθένους καταστήσαντος ἀντὶ ναυκλάρων.

Ἀθηναίον Πολιτεία 8.3: φυλαὶ δ’ ἦσαν διαθέμες τῆς πομῆς. [ἐκ] δὲ τῆς φυλῆς ἐκάστης ἦσαν νενεμημέναι τριττύες μὲν τρεῖς, ναυκραρίαι δὲ δώδεκα καθ’ ἕκάστην· ἢν δ’ ἐπὶ τῶν ναυκραρίων ἀρχὴ καθεστηκυία ναύκραροι, τεταγμένη πρὸς τῇς εἰσφορᾶς καὶ τᾶς δαπάνας] τὰς γιγνομένας· διὸ καὶ ἐν τοῖς νόμοις τοῖς Ἀθηναῖοι ἀργύρου ὀσκέτι χρώνται πολλαχοὶ
γέγραπται, "τοὺς ναυκράρους εἰσπράττειν", καί "ἀναλίσκειν ἐκ τοῦ ναυκραρικοῦ ἄργυρ[ίο]υ".

Athenaion Politeia 21.5: κατέστησε δὲ καὶ δημάρχους, τὴν αὐτὴν ἐξοντας ἐπιμελείαν τοὺς πρότερον ναυκράρους. καί γὰρ τοὺς δήμους ἀντὶ τῶν ναυκραρίων ἐποίησεν.

Harpocration s.v. δήμαρχος, δ 89: τούτους δὲ φησίν Αριστοτέλης ἐν Ἀθηναίων πολιτείᾳ ὑπὸ Κλεισθένους κατασταθήναι, τὴν αὐτὴν ἐχοντας ἐπιμελείαν τοῖς πρότερον ναυκράρους. ὡς δὲ ἰνεχυρίαζον οἱ δήμαρχοι δηλοί Ἀριστοφάνης ἐν Σκηνὰς καταλαμβανοῦσαι.

Harpocration s.v. ναυκραρικά, ν 211: ἐὰν τὰ τῶν ἀρχόντων-ναυκράρους γὰρ τὸ παλαιὸν τοὺς ἀρχοντας ἔλεγον, ὡς καὶ ἐν τῇ Ἡρόδοτος δηλοί. Ἀριστοτέλης δὲ ἐν Ἀθηναίων πολιτείᾳ φησίν "κατέστησαν δὲ δημάρχους τὴν αὐτὴν ἐχοντας ἐπιμελείαν τοῖς "πρότερον ναυκράρους," [δήμους ἀντὶ τῶν ναυκραρίων ἐποίησαν.]

Herodotus 5.71.2: τούτους [the Kylonians] ἀνιστάσι μέν οἱ προτερον καλούμενοι ναύκραροι· ἀρχοντες δὲ ἦσαν καὶ ἰνεχύραζον οὗτοι τοὺς ὁφείλοντας

Hesychius s.v. δήμαρχοι, δ 824 Latte: οἱ προτερον καλουμενοι ναυκραροι· αρχοντες δε ἦσαν και ἰνεχυραζον ουτοι τους ὁφειλοντας

Hesychius s.v. ναύκλαροι, ν 118 Latte: δήμαρχοι, ἔπηρέται. "ναύκληροι" δὲ ἔρεται. τινὲς δὲ ἄρ' ἐκάστης φυλῆς δῶδεκα, οἵτινες ἄρ' ἐκάστης χώρας τὰς εἰσφορὰς ἐξέλεγον. ὡσπερ δὲ δήμαρχοι ἐκλήθησαν.

Kleidemos FGH 323 F 8: ὁ Κλείδημος ἐν τῇ τρίτῃ φησίν, ὅτι Κλεισθένους δέκα φυλὰς ποιήσαντος, ἀντὶ τῶν τεσσάρων, συνέβη καὶ εἰς πεντήκοντα μέρη διαταγήναι αὐτοὺς δὲ ἐκάλουν ναυκράρια· ὡσπερ νῦν εἰς τὰ ἐκατὸν μέρη διαρθέθηναι καλοῦσι συμμορίας.


Photius s.v. ναυκράρια [v, 287-88]: ... ναυκράρους γὰρ τὸ παλαιὸν τοὺς ἀρχοντας ἔλεγον· ὡς καὶ Ἡρόδοτος ἐν ἑ ἱστορίαιν.

Photius s.v. ναυκράροι [v, 288]: τὸ παλαιὸν Ἀθήνησιν οἱ νῦν δήμαρχοι· καὶ οἱ ἐκμισθούντες τὰ δημόσια.
Photius s.v. ναυκραρία [v, 288]: τὸ πρότερον οὔτως ἐκάλουν ναυκραρία καὶ ναύκραρος· ναυκραρία μὲν ὅποιον τί ἡ συμμορία καὶ ὁ δήμος· ναύκραρος δὲ ὅποιον τί ὁ δήμαρχος. Σόλωνος οὔτως ὄνομασαν τῷ καὶ Ἀριστοτέλης φησὶ [fr. 387 Rose]· καὶ ἐν τοῖς νόμοις δὲ ἀν τὶς ναυκραρίας ἀμφιβοληθητέ· καὶ τοὺς ναυκράρους τοὺς κατὰ ναυκραρίαν· ὕστερον δὲ ἀπὸ Κλεισθένους δὴμοι εἰσίν· καὶ δήμαρχοι ἐκλήθησαν· ἐκ τῆς Ἀριστοτέλους Πολιτείας, ὃν τρόπον διέταξε τὴν πόλιν ὁ Σόλων· φυλαί δὲ ἦσαν τέσσαρες καθάπερ πρότερον καὶ φυλοβασιλείς τέσσαρες· ἐκ δὲ τῆς φυλῆς ἐκάστης ἦσαν νενεμημέναι, τριττύες μὲν τρεῖς, ναυκραρίαι δὲ δώδεκα καθ᾽ ἐκάστην·

Pollux Onomasticon 8.108-109: δήμαρχοι οἱ κατὰ δήμους ἀρχοντες· ἐκαλοῦντο δὲ τέως ναύκραροι οτὲ καὶ οἱ δήμοι ναυκραρίαι. ναυκραρία δ᾽ ἦν τέως φυλῆς δωδεκατὸν μέρος, καὶ ναύκραροι ἦσαν δώδεκα, τέτταρες κατὰ τριττύν ἐκάστην. τὰς δ᾽ εἰσφοράς τὰς κατὰ δήμους διεχειροτόνουν οὔτοι, καὶ τὰ εἰς αὐτῶν ἀναλώματα. ναυκραρία δ᾽ ἐκάστη δύο ἱππέας· ναυκράρια δ᾽ ἐκάστη δύο ἱππέας·

Ptolemaeus De differentia vocabulorum 402.18-21: ναύκληροι. μὲν οἱ ναῦς κεκτημένοι· ναύκραροι δὲ οἱ εἰς πρασσόμενοι τὰ δημοσία κτήματα· ναυκράρια οί τόποι ἐν οίς ἐκέλευσαν τὰ κτήματα· τὰς δὲ ἀνάλωμας ἐλέγοντο διότι ναύκληροι καὶ οἱ μισθωτοὶ τῶν συνοικιῶν.

Suda s.v. ναυκραρικά, v 57 Adler: ... ναυκράρους γὰρ τὸ παλαιὸν τοὺς ἀρχοντας ἐλέγον, ὡς καὶ Ἡρόδοτος ἐν οὐ ἱστορίων δηλοῖ. ἵσως παρὰ τὴν τῆς νηὸς κραίραν εὑρῆται τὸ ναυκραρία.

Suda s.v. δήμαρχοι, δ 421 Adler: ... όνομα δὲ πολιτείας οἱ δήμαρχοι παρὰ τοῖς Ἀθηναίοις, οἱ πρώην ναύκραροι καλούμενοι· οἴς ἐξὴν ἐνεχυράζειν. καὶ Φερεκράτης· ὑπέλυσε δήμαρχος τις ἐλθὼν εἰς χορὸν. οἱ κατὰ δήμον.

Notes

(2) I build on research published in FIGUEIRA, 1986, 1990. My research on maritime history also appears in FIGUEIRA forthcoming[a]; forthcoming[b].


(4) Milletos: Plut. Mor. 298C (IG 32), cf. Hsch. Mil. s.v. δέσποινας, a 1292 Latte; also at Eretria: IG XII 9.909, 923. See FIGUEIRA forthcoming[b].

(5) Harpocratia s.v. ναυκραρικά; Hsch. Mil. s.v. δήμαρχοι; Phot. s.v. ναυκραρία; Suda s.v. ναυκραρικά. Some caution is needed because the lexicographical tradition of naukraroi asarchons may in part derive from Herodotus.

(6) BILLIGMEIER/DUSING, 1981, which fails to cite earlier linguistic analyses (e.g., SOLMSEN; CHANTRAINE); also JORDAN, 1979: 58-59 (with n. 74; cf. JORDAN, 1975: 9-11); 1992 66-67; GABRIELSEN, 1983: 47-49; 1992: 24 (with reservations). Cf. LAMBERT, 1986: 111 (with n. 26); HOMMEL, 1988: 41-42; OSTWALD, 1995: 371 (with note 9). RIHLL, 1987, objects because the term ναυκράρια would hence become incomprehensible, preferring a derivation from ναύος «dwell» and κλήρος «lot» so that ναυκράρια would mean «allotted land», and the ναυκραρίαι would connote the settlements of Attica. The Athenians, however, would hardly have had a unique (and non-hierarchical) vocabulary to express levels of habitation that deviated from the terms δῆμοι and κόμαι used elsewhere.


(8) FIGUEIRA, 1993: 231-235. See also HIGNETT, 1952: 69-70, who summarizes earlier scholarship assigning origin of the naukraroi to the Peisistratid period on grounds of their relevance to a centralized administration (also GS 866 [n. 6]). My treatment presents the institution as clearly pre-monetary. The watershed in monetization was in any case post-Peisistratid.

(9) Lex. Seguer. s.v. ναύκραροι; Poll. 8.108.

(10) GLOTZ, 1900: 146-147 hypothesized that a πάραλος ship was one kept on the beach, so ready for immediate use.


(13) Σκίστοφρ. Nubes 37c; Ath. Pol. 21.5; Harpocratia s.v. δήμαρχος; Harpocratia s.v. ναυκραρικά; Hsch. Mil. s.v. δήμαρχοι, s.v. ναύκλαροι; Phot. s.v. ναυκράροι; Phot. s.v. ναυκραρία; Poll. 8.108; Suda s.v. δήμαρχοι.


(15) GLOTZ 1900 137-52, explains the 48 naukrariai by noting the conformity of early naval contingents (thinking especially of the illeic Catalogue of Ships) to the tribal system of their community – hence a multiple of the four Ionian tribes – and by supposing situations where each naukraria provided one rower for a pentekontor (with the polemarch and his attendants?).


(18) Lex. Seguer. s.v. Κωλίας; PAUS. 1.5.1; cf. Hdt. 8.96; Plut. Solon 8.4.


I surmise that our knowledge of Kollas as a naukraria may derive from its appearance in a tradition about Solon's capture of Salamis (Plut. Solon 8.4; Polyaeen.1.20.1-2).

Kleidemos FGrH 323 F17 (apud Plut. Thes.19.5). See FIGUEIRA forthcoming[a]; cf. JACOBY FGrH 3b, 1.74-75.

Fifty naukrarai the size of Kollas or Halimous would constitute 100-150 or 20-30% of the Boule. Taking into account non-maritime economic activity in naukraric centers, an even smaller proportion of the Attic population lived from seafaring, perhaps <10-15%.

There has been notable speculation on this phrase without demonstrative results. See GABRIESEN, 1985: 38-40.


FIGUEIRA forthcoming[a] discusses the evolution of these navies. Cf. HAAS, 1985; PAPALAS, 2000a, 2000b.


Kleidemos, FGrH 323 F 8; cf. Ath. Pol. 8.3; Hsch. Mil. s.v. ναύκλαροι; Phot. s.v. ναυκράροι; Poll. 8.108.

BELOCH, 1926 1.2.323 saw this problem, but was willing to lower the number of earlier naukrariai.

See also KAHRSTEDT, 1934: 248.

WILAMOWITZ-MOELLENDORFF, 1893: 2.163-64 (n. 48) sensed the problem and suggested emending to ὁδεκα.


See JACOBY FGrH 3b (Supp.) 1.147-48, 2.134, who suggests that the ultimate source was a sacred calendar containing cult instructions.

Ath. Pol. 21.5; Harpocratin s.v. δήμαρχος, ναυκράρικα; cf. Συντομικοσ. Nubes 37b-c; Hsch. Mil. s.v. ναύκλαροι; Phot. s.v. νοικράροι; Poll. 8.108; Suda s.v. δήμαρχοι.


RHODES, 1981: 152; FIGUEIRA, 1993: 164 (n. 62) ~ 1986: 271. Note that νέμεσθαι, «to derive revenue from», is used epexegetically, twice with δίδωμι (3.160.2; 8.136.1; cf. 5.95.2) or with an object like μέταλλα (4.165.2; 5.45.2; 7.112; 9.116.3). The object of the verb in the middle voice is only once a polis, non-Greek Kamikos (7.170.1), and thirce Greek polis-islands, Lesbos and Lemnos (1.151.2; 6.81.1; 6.138.1), but in these cases it means «to inhabit».

JORDAN, 1970: 173-174; 1979 28, 56-62. Cf. GABRIESEN, 1986: 41-42. Factors telling against are (1) the improbability that the terms prutaneis and naukroai usurped the panhellenic terminology to which Athens itself later adhered, (2) the fact that the term prutaneis was used for various Attic officials, not just the tamiai (FIGUEIRA, 1993: 159-161; 1986: 265-267; cf. also IG I' 4); (3) the unlikelihood that prutaneis would be necessary for so small a board of naukroai (DEVELIN, 1986: 67-70, responds by suggesting that only those naukroai present and active
on the Acropolis were *prutaneis*); (41) the mystery over what empowered the *prutaneis* to negotiate (n.b.) with Kylonians (cf. LAMBERT, 1986: 107); (45) finally, that IG I 510 (LSAG 72, 77) of c. 550 contains a dedication of the *tamiai* of Athena (cf. JORDAN, 1979: n. 79 [p. 61]).

(39) Cf. JORDAN, 1992: 62-66. An added improbability is that the *naukraria* of Kolias must become a *naukraric* district based on the cult center there. Not only would it be quite a coincidence that the only explicitly attested *naukraria* is a coastal harbor, but the existence of such districts would imply a consolidation of religious activity completely unbelievable in the 7th century, an administrative stage only reached during the Peloponnesian War with the Treasurers of the Other Gods.


(40) THOMSEN, 1964: 134.

(41) THOMSEN, 1964: 138-139; OSTWALD, 1995: 373-377, who thinks that the question posed in the *dokimasia* of a prospective office holder εἰ τὰ τέλη τελεῖ, «if he fulfills his obligations» confirms this supposition (Ath. Pol. 55.3; Din. 2.17; Cratinus Junior, fr. 9 [PCG 4.342-43]).

(42) Cf. GS 599; BELOCH, 1926: 1.2.327; GABRIELSEN, 1985: 42-43.

(43) JORDAN, 1992: 64-65; VALDÉS GUÍA, 2002: 70.


(49) Cf. JORDAN, 1992: 68-79, for the idea that the *prutaneis* were mediators, a view which exceeds the evidence for parallel use of νέμω that supports the concept of «management».

(50) FIGUEIRA, 1986: 273-274 ~ 1993: 166-167; LAMBERT, 1986: 107-110. I would deem most improbable his hypothesis that the archaic archons, especially the eponymous and the *polemarch*, could be abroad at the Olympic games during their year of office.


(52) *Agora* 17.1065: Χάππον τόδε φεοίν ἀλειτερον πρ[υτ]άνειον Ι τόστρα[κον Ἀρρί] ροφονον παῖδα μί[λ]ιοτ' ἀδίκεν «This ostrakon says that Xanthippos, the son of Arphro, does injustice the most out of the accursed *prutaneis*».


Bibliography


P. Chantraine (1968-80), Dictionnaire étymologique de la langue grecque, Paris.


____ (Forthcoming) [a], «Archaic Naval Warfare», N. Birgalias (ed.), Great is the Power of the Sea: The Power of Sea and Sea Powers in the Greek world of the Archaic and Classical Periods, Sospolis (Athens).

____ (Forthcoming) [b], «Modes of Colonization and Elite Integration in Archaic Greece», N. K. E. Fisher & H. van Wees (eds.), Aristocracy: Elites and Social Mobility in Ancient Societies, Classical Press of Wales (Swansea).

H. Frisk (1960-72), Griechisches Etymologisches Wörterbuch, Heidelberg.


G. Glotz (1900), «Les nau克拉res et les prytanes des nau克拉res dans la cité homérique»: REG 13 137-57.

GS = G. Busolt and H. Swoboda (1926), Griechische Staatskunde¹, Munich.


C. Higgett (1952), A History of the Athenian Constitution to the End of the Fifth Century B.C., Oxford.


M. Jameson (1965), «Notes on the Sacrificial Calendar from Erchia», BCH 89 154-172.


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U. KAHRSTEDT (1934), Staatsgebiet und Staatsangehörige in Athen. Studien zum öffentlichen Recht Athens, v. 1, Stuttgart/Berlin.

S.D. LAMBERT (1986), «Herodotus, the Cylonian Conspiracy and the πρυτάνιες τῶν ναυκράρων»: Historia 35, 105-12.


J. S. TRAILL (1975), The Political Organization of Attics, Hesperia (Supplement 14), Princeton.


D. WHITEHEAD (1986), The Demes of Attica 508/7-ca. 250 B.C. A Political and Social Study, Princeton.

U. von WILMAOWITZ-MOELLENDORFF (1893), Aristoteles und Athen, Berlin.