The Glue of Democracy: Economics, Warfare and Values in Classical Greece

Kyriazis, Nicholas and Paparrigopoulos, Xenophon and Economou, Emmanouel/Marios/Lazaros

University of Thessaly-Department of Economic Studies, University of Thessaly-Department of Economic Studies, University of Thessaly-Department of Economic Studies

15 March 2013

The Glue of Democracy: Economics, Warfare and Values in Classical Greece

Nicholas Kyriazis, Xenophon Paparrigopoulos and Emmanouil Marios L. Economou*

Abstract In the present essay we analyse the links between the emergence of new arms and forms of war-emergence, the phalanx and its hoplites, and the trieres at sea, its economic base, and the emergence of democracy in classical Greece. We propose that the unique till then in the world phalanx formation, led to the development of particular values and ethics, which again were the necessary conditions for the emergence of democracy, then again, a unique phenomenon. We then turn to seapower, which according to our analysis was a sufficient condition for the establishment and endurance of democracy, because seapower led to a community of economic interests, on which direct democracies like Ancient Athens, were based.

Keywords: Democracy, seapower, values, warfare, economic development.

JEL Classification: 010 • B11 • N30

* Nicholas Kyriazis is Professor at the Department of Economics, University of Thessaly, Korai 43, Volos, Greece, PC: 38333 e-mail: nkyr@ergoman.gr

Xenophon Paparrigopoulos is Associate Professor at the Department of Economics, University of Thessaly, Korai 43, Volos PC: 38333 e-mail: nkyr@ergoman.gr

Emmanouil Marios L. Economou is a Ph.D Candidate at the Department of Economics, University of Thessaly, Korai 43, Volos, Greece, PC: 38333 e-mail: emmoikon@uth.gr (corresponding author).

INTRODUCTION

A fourth century Athenian orator, Demades, said that the *theorika* (payments out of the Athenian budget to the poorer citizens, to allow them to participate at the main Assembly days (40 per year) and to watch the four days theatrical contests, was the "glue of democracy" (Plutarch *Moralia*. 1011b) meaning that they established a community of interests in favour of democracy. The *theorika* made the majority of poorer citizens to have a stake in democracy.

Rich citizens on the other hand were also satisfied in general with democracy in the classical Athenian period (5^{th} – 4^{th} centuries) although they were taxed through the system of *liturgies*, which had (again for the first time in history) a redistributive function.[1] Rich and medium income citizens profited also from the general economic development in Athens, and apparently also in other maritime city-states (for which we have only fragmented information) such as the islands of Naxos, Samos and Chios in the Aegean sea, Megara in the northern section of the Isthmus of Corinth or Akragas and the major city of Syracuse in Sicily, or Croton in today's south Italy etc.,[2] and so were willing to support (or at least accept) direct democracy.

But direct democracy as a political institution is much older than the introduction of the first *theorika* at the time of Pericles (after 450 B.C.). One of the preconditions for the emergence of democracy was the new type of warrior, the *hoplites* and the new tactics that

---

[1] See Mogens Herman Hansen, *The Athenian Ecclesia: A Collection of Articles 1976-1983* (Viborg: Special Trykkeriet-Vyborg, 1983), 1:19; Mogens Herman Hansen, *The Athenian Democracy in the Age of Demosthenes* (Bristol: Classical Press, 1999), 315-318 and Nicholas Kyriazis, "Financing the Athenian State: Public Choice in the Age of Demosthenes," *European Journal of Law and Economics* 27 (2009): 109-127.

[2] See Eric W. Robinson, *The First Democracies: Early Popular Government Outside Athens* (Stuttgart: Franz Steiner Verlag, 1997), 103-104, 117-118; Kurt A. Raauflaub and Robert W. Wallace, "Peoples Power and Egalitarian Trends in Archaic Greece," in *Origins of Democracy in Ancient Greece*, eds. K. A. Raaflaub, J. Ober, R. and W. Wallace, (Berkeley and Los Angeles: University of California Press, 2008), 49.

were developed as the most suitable form to accommodate the hoplites. The new battle tactical formation, the *phalanx*, led to the development of new values and ideals in the field of battle, which, once established, became widely accepted, and thus were introduced also in the political field. These were the values on which direct democracy rested.

We maintain that no democracies developed without the existence of hoplites and phalanxes. But, in some cases, like Sparta, hoplites and phalanxes did not lead to full democracy, while in others it did. So, the emergence of the hoplites and the phalanx seems to be a necessary but not a sufficient condition for the emergence of democracy. A further analysis of the ancient Greek city-states shows that those that transformed themselves into seapowers and maritime states, tended to be also democracies. Apart from Athens, the relationship between seapower and democracy finds its most clear example with the case of the island of Rhodes. Since 395 BC and then, democratic reforms became deeper and went hand in hand with the existence of strong navy and the rise of maritime commerce.[3] Thus, seapower seems to be an almost sufficient condition for the emergence and endurance of democracy in classical times, and we explain this as being due to the establishment of a community of mainly economic interests.

Although the *hoplite* and the phalanx were the main elements in the establishment in the new mindset ideas and values, it was not the only one. Other elements were the city-state environment, leading in most case to face to face cultures, religion and sports. Greek religion was "democratic" in its working, as portrayed by the Assembly of the gods were women goddess had equal speaking and voting rights, as well as the absence of an established caste of

[3] See Eric W. Robinson, *Democracy Beyond Athens: Popular Government in the Greek Classical Age* (Cambridge: Cambridge University Press, 2011), 236.

priests.[4] Sports also, as institutionalised in various athletic games as the Olympics, Nemean, Pythian, Panathenean, Isthmian, Heraean etc contributed to an egalitarian set of values and ideas.[5]

The essay is organised as follows: In the first section, we trace the development of the hoplites, the introduction of the phalanx as a battle formation, and its economic basis. In the second, we discuss the emergence of new values and how these values were transferred to the political field, and led to the introduction of democracy and to democratic values. In the third, we analyse the emergence of Athens as a maritime power, the link between seapower and democratic values and the community of interests on which the durability of democracy was based. This is followed by our conclusions.

THE HOPLITES, THE PHALANX AND THE EMERGENCE OF NEW VALUES

"The connection between democracy and the militia principle has long been recognized; it takes little insight to perceive that those who vote for war also commit themselves to fight in it".[6] That this is not universally true is demonstrated by the fact that during the 4th century BC, Athens and many other city-states voted for war, but used mainly mercenaries. So, the commitment was for financial resources first, and for military service sometimes as a second. A particularly strong example are the Phoceans, who decided on war,

[4] Nicholas Kyriazis, and Economou, Emmanouil Marios L., "Property Rights and Democratic Values in Bronze Age and Archaic Greece," MPRA Paper 42399 (University Library of Munich, Germany, 2012).

[5] Nicholas Kyriazis and Economou Emmanouil Marios L., "Macroculture, Sports and Democracy in Classical Greece," Paper Presented at the 25th Heilbronn Symposion in Economics and the Social Sciences, June 21-24th, 2012, in Heilbronn; Nicholas Kyriazis and Economou Emmanouil Marios L., "Macroculture, Sports and Democracy in Classical Greece," *European Journal of Law and Economics* (forthcoming).

[6] See John Keegan, Introduction to Victor Davis Hanson, *The Western Way of War* (Berkeley and Los Angeles: University of California Press, 2009), xii.

plundered the treasure of the oracle at Delphi, and used the proceeds to buy the services of mercenaries.[7] What has been not sufficiently analysed, as far as we know, is that the emergence of the hoplites and the phalanx led to particular values on which democracy was based. These values that emerged on the battlefield became democratic values.

The hoplite, the heavily armed infantryman emerged during the late geometric age (during the 8th century BC and later). He was armed with a heavy round shield, the *hoplon* (from which he took his name) that covered the body up to the upper legs, greaves, a bronze or leather armour for his torso and back, and a bronze helmet (at the time usually of the Corinthian type which enclosed his head, leaving only slits for his eyes).[8] Offensive weapons were a spear with an iron tip on a two to three meters wooden shaft and a short sword.[9]

This equipment was new, and unique, developing only in central and southern Greece, linked both to economic and geographic factors. The economic one was the establishment of independent farmers, who owned the land they cultivated and were not tenants or slaves. The most prosperous of them could afford the hoplites equipment, which was financed and owned by themselves. The geographic factor was the morphology of the area, which did not favour the development of large bodies of cavalry, as in eastern countries, but also the area of Thessaly in central Greece. The areas were hoplites developed lacked adequate pasturelands for large herds of horses.

Lighter types of infantry like archers, javelin throwers and slingers could have

---

[7] Michael B. Sakellariou, "Towards Greek Unity," in *History of the Greek Nation*, Γ2 (Athens: Ekdotiki Athinon, 1972), 34-95 (in Greek).

[8] For descriptions of Greek armies and armour, see Alexandros Despotopoulos (1972), "The Art of War of the Greeks, 1100-336," in *History of the Greek Nation*, Γ2 (Athens: Ekdotiki Athinon, 1972), 192-235, (in Greek); Nicholas Sekunda, "The Ancient Greeks," *Osprey Elite* 7 (1986): 4-12.

[9] Nicholas Kyriazis and Xenophon Paparrigopoulos, "War and Democracy in Ancient Greece," *European Journal of Law and Economics* (2012): DOI 10.1007/s10657-012-9352-1.

developed, and were used, but only in small numbers, their use not being a battle deciding factor. We believe that this was due to the fact that the new hoplites defensive armour offered adequate protection against the offensive power of the light infantry's weapons. Also, even when the hoplites confronted cavalry, either Greek (Thessalians) or foreign (Persians) they usually emerged victorious, partly also because ancient cavalry (at least to the second half of the 4th century) lacked offensive power against the phalanx formation.[10] Ancient cavalrymen were inhibited in their stability on horseback because they lacked stirrups and adequate sadles (in contrast to eg., medieval knights).

In order to be effective, the hoplites had to be used in new efficient formations. So, the phalanx emerged, a new and revolutionary formation. Up to then, both in Greece and in the east, battles were decided in individual "melées", where aristocrats battled usually each other and also mixed in battle against each other, as Homer vividly portrays these combats. In the east, archery both from horsemen and infantry, was the battle-deciding weapon, and close hand-to-hand combat occurred only when one of the adversaries had been weakened.

Due to this type of combat, ancient eastern armies (with the exception of very few noblemen, kings and their close relatives and bodyguards) lacked heavy defensive armament. Their shields were usually smaller and lighter than the hoplon, their body armour consisted of mainly leather with sometimes metal scales, or none at all, and their helmets covered, if carried, only the top of the head, leaving the face unprotected.[11]

---

[10] The first indications that the phalanx formation could intercept a cavalry formation became obvious as early as 510 BC, before the Greek-Persian wars of 490-479 BC, when the Spartan phalanx intercepted the Thessalian cavalry by using special techniques (mainly by amplifying its flanks). See Alfred S. Bradford, *Leonidas and the Kings of Sparta: Mightiest Warriors, Fairest Kingdom* (Santa Barbara, California: ABC-CLIO, 2011), 69.

[11] For ancient non-Greek armies see Nicholas Sekunda, "The Persian Army 560-330 BC", *Osprey Elite* 42 (1992): 5-10; Mark Healy, "The Ancient Assyrians", *Osprey Elite* 39 (1991): 3-12 and Mark Healy, "New Kingdom Egypt," *Osprey Elite* 40 (1992): 5-24.

The Greek phalanx was a tight formation, usually 8-10 ranks deep, where every hoplite covered one square meter of ground. Each hoplite covered, with his shield (carried on his left arm) not only himself but the right unprotected spear side of the hoplite standing to his left, while his own right side was covered by the shield of the hoplite standing on his right. During battle, the second to the last ranks (except, that is, the "front" line) thrusted the external sides of their shields on the backs of the hoplite in front of them, pushing forward, and being pushed by the hoplite behind them, in a tactic called "othismos". Thus, the phalanx developed great strength in thrust, becoming a compact body that could push back in hand to hand fighting any other army type (cavalry or infantry) not being thus equipped, as demonstrated during the Greek–Persian Wars. As Xenofon (*Hellenica*. 7.1.38) wrote there were no Asians *"able to stand up to Greeks in battle",* except of course other Greek phalanxes.

Victor Davis Hanson in his *The Western Way of War* asserts on the issue of the strength of the phalanx that *"These men were the first we know of to relegate cavalry to a secondary role and thus to suppress for a thousand years to come the notion that the battlefield was the private domain of aristocratic horsemen. Nor did they have any liking for the landless poor, who were skilled only in missile attack. The hoplite class of the Greek classical age chose to ignore the low and the javelin in preference for the spear and massive bronze armour in a desire to eliminate entirely the critical "distance" that elsewhere traditionally separated men in battle*".[12]

We do not have any extant data concerning the cost of the equipment of the hoplite, but it must have been relatively expensive. Only relatively well-off free landowners could afford it. Ancient Athens during the Persian invasions, for which we possess some information, permits us at least to estimate the number of hoplites and their percentage as to the total number of citizens. We know from Herodotus (*Histories* 6. 94-140), that the Athenian army at

[12] Hanson, *The Western Way*, 17.

Marathon was 9-10.000 strong. Assuming that some (perhaps 2.000?) older classes of hoplites stayed behind at Athens as a reserve, we arrive at an estimate of 11-12.000 hoplites in 490 BC, the year of the battle.

Some additional information given by Herodotus for the year 482 BC, when Themistocles Naval Law was voted (and which as far as we know has not been used before) permits us a calculation of number of Athenian citizens. The Athenian Assembly voted for the construction of 100 warships (triremes) at a cost of a talent each, a talent being the equivalent of 6.000 drachmae. This gives a total cost for the naval shipbuilding programme of 600.000 drachmae. We also know, that another proposal was put forward to the Assembly: The total sum should have been distributed on an equalitarian basis to all Athenian citizens, each citizen due to receive 10 drachmae. A division of the two sums (total cost by individual receipt) gives a total number of citizens for 482 BC of 60.000.

Thus, during the early fifth century, only one in five citizens (or 20%) belonged to the well-off landowning farmers' class that could afford hoplite armour. We believe that, with perhaps small variations, this proportion must have characterised all city-states, with the exception of Sparta, where one could be a citizen only if he was a hoplite, called an "equal".

In Sparta, the concepts of citizen and warrior-hoplite, merged, while in the other city-states they had, as we will demonstrate in the next section, a close link.

VALUES OF THE PHALANX AND VALUES OF DEMOCRACY

A city-state culture was not a unique Greek development. 37 such cultures in Europe, Asia, Africa and Central America have been identified.[13] What was unique for geometric and classical Greece, was the combination of city-state culture and the emergence of the heavily armed hoplite warrior and the phalanx formation.

[13] Mogen Herman Hansen, *Polis* (Oxford: Oxford University Press, 2006), 5-12.

The hoplite and the phalanx developed together with city-state culture during the late 8th to 6th centuries, and thus preceded by at about two hundred years the emergence of democracy. Evidence from pottery painting[14] show that phalanx formations were already battling in full development during the 7th century and even more so during the Spartan-Messenian wars of the early sixth, while the first democracies emerged only during the beginning of the 6th century, in some Greek Asia Minor city-states, on which we have only fragmentary evidence, in Athens by Solon (594-593 BC) and as a fully developed democracy only by Cleisthenes in 510-507 BC and after Themistocles Naval Law of 482 BC.[15]

Thus, historical evidence points to an influence from the phalanx to democracy and not vice-versa, not even a development in parallel. Why should this be so? We maintain that this arose because the phalanx created a particular set of ideals and values, which then where translated in political values that shaped democracy.

A widely held belief today is that democracy promotes individualism. This is true in the sense of safeguarding individual rights, but it was not true for the phalanx. Homeric aristocratic warriors were supreme individualists. Lightly armed ancient warriors, fighting in loose order, and with no such close contact as the hoplites in the phalanx, fought also relatively more as individuals, as did horsemen, who required more space between them to manoeuvre their horses.

As we analysed in the previous section, the phalanx formation was very compact. The hoplites were standing very close one to another, and the middle ranks actually touching one

[14] A particular fine example being the mid-7th century Corinthian wine amphora called the *Chigi* pottery, preserved in Villa Julia, Rome. It shows hoplites battling in phalanx formations. It antecedents Solonian democracy by about a 100 years.

[15] For the development of democracy in ancient Athens, see Josiah Ober, *Democracy and Knowledge: Innovation and Learning in Classical Athens* (Princeton and Oxford: Princeton University Press, 2008), chap. 2, 3.

another through their shields on front and backs.[16] In the phalanx, the hoplites were almost literally glued together. This close fitting order gave the phalanx its great strength, but it was a strength were individuals combined their personal strength into a greater, almost "transcendental" strength of the phalanx. In the phalanx warriors did not fight mainly as individuals, but as parts of a whole. The strength of the phalanx depended on unity.

In such a formation, individual skill and courage, were subordinate to compactness and order. The phalanx moves forward and pushes as one, as a mass of shields, bodies and spears. Individuals took courage from one another, step with the same speed, the Spartans introducing even drums and fifes in order to facilitate the phalanx's movement. In the phalanx, the first value that emerges, is equality. Equality in equipment (due to similar economic background) in position, in danger, in purpose.

The main purpose is to impose the phalanx's will on the enemy, to push him back, to compel him to retreat, to break and abandon the field of battle. The phalanx, through its tactic of "othismos" develops a common purpose, a common will. This equality and common purpose gave the phalanx its cohesion. A solidarity and ties of camaraderie[17], a trust to the hoplite guarding your right, to the one pressing his shield on your back, as the hoplite on your left trusted you with his life. By the 7th century BC, the hoplites had proven their superiority on the battlefield against any other type of warrior and army, be it aristocratic horsemen, or charioteers (like in Mycenaean Greece or Egypt of the New Kingdom or the Assyrian empire) or archers, javelin throwers or slingers.

Having proven their supremacy in warfare, they became conscious of their strength also in politics. We do not know exactly how the process started and developed, but by the 7th

[16] For the development and the functioning of the phalanx formation during batle see Peter Krentz, "The Nature of Hoplite Battle," *Classical Antiquity*, 4(1) (1985): 50-61 and Hanson, *The Western Way*, chap. 12-13).

[17] (ibid., chap. 10).

century a big political transformation had taken place: kingships did no more exist in central and southern Greece, as they were the norm during the Bronze Age. They existed only in the fringes of the Greek world where the phalanx was not yet adopted, like Macedon and Epirus, and in the mixed system of Sparta. What emerged, were oligarchies, of the relatively well-off citizens, the majority of which were of the hoplite class, and tyrannies, were some individuals seized power, but were again supported usually by a majority of the well-off citizens, hoplite-landowners.[18]

By the end of the 6th century even this sort of political arrangement was deemed to be inadequate and a new from, direct democracy, was introduced. Democracy was based on transferring to the political sphere the values that had evolved and had been tested on the battlefield in the phalanx: The fact that the phalanx formation had developed as a means of self-defence of Greek city-states made necessary the participation in it the majority of citizens of each independent city-state, without any discrimination concerning the social status.[19] Thus, the value of equality which developed in the phalanx's ranks became equality in politics, eg. equality in rights to vote, to be elected, but also legal rights.

Solidarity, trust and camaraderie in battle were transformed in trust and solidarity in the political field. You are prepared to listen, to accept somebody's opinion if you trust him with your life in battle, and you are willing to vote for him for public office and obey him for the duration of this office, as you do if you have elected and accepted him to lead you in battle. We do not know how military leaders were chosen up to the 6th century BC, but we do know that at least by the end of this century, in Athens, the military leaders, the *10 Strategoi*

[18] There were a few exceptions like the mid-sixth century Athenian Peisistratos, who it seem based his power in part at least to the poorer mountain dwelling Athenians and also to mercenaries. The fact that ancient historians point this out demonstrates that in their eyes it was an exception.

[19] Paul Cartledge, "Hoplites and Heroes: Sparta's Contribution to the Technique of Ancient Warfare," *The Journal of Hellenic Studies*, 97 (1977): 11-27.

(Generals), each the head of the armed contingent of each of the ten Athenian tribes) were elected democratically.[20] So, election of military leaders might have again predated the introduction of democracy.

In democracy, in parallel to the above values, one supreme ideal was developed, the ideal of common purpose, or social cohesion, which we believe again is transplanting the common purpose and the common will of the phalanx in the field of politics.[21] In democracies, this supreme ideal was called *homonoia* (Plato *Republic* 5. 432A, 433C; Lysias *Speeches*. 25.30), literally "same-mindnesss".[22] Based again on this, the next "revolutionary" step in politics is no longer far, to base the validation of politics and the justification of democracy on the existence of a natural right that leads to the establishment of a social contract. Ancient Athenians did actually take this step in practise by the end of the 5th century. For example, Antiphon the sophist wrote the *Peri Homonoias*, fragments of which were discovered in the 19th century on a papyrus. On this fragment we have the first ever formulation of the theory of natural law and *Social Contract*. Pericles also, in his *Funeral*

---

[20] For the 10 Athenian Strategoi (Generals) see Greg R. Stanton, *Athenian Politics, C. 800-500 B.C.* : *A Sourcebook* (London: Rutledge, 1990), 19-20.

[21] Aristotle, in a famous passage (*Politics* 1281b. 1-8) writes: *"The many out of which none is great, may, when they assemble into a body, be better than the few, not each individually, but as a whole, like in the symposia that are organised by many together. As each of the many possesses an atom of virtue and knowledge, when they come together into a body, they become concerning ethics (morals) and thinking as one human, with many hands, many legs and many sensations".* We believe that there could not be a better description of the phalanx, although Aristotle uses the passage as a justification of democracy. This again, is supporting our analysis of the relation between the phalanx and democracy.

[22] *Homonoia* is usually being translated as concord, but Paul Cartledge in a personal communication suggested to us that a better translation could be "same-mindness" and unanimity, which is stronger than concord. Another major value was *isonomia*, which refers to political systems were means equality in front of the law exists, but not electoral rights, to vote and be elected.

Speech (as given by Thucydides) illustrates the concept of homonoia among the ideals of democracy.[23]

The influence of values developed during two centuries of phalanx warfare on the emergence of democracy can be analysed also as a case of *bounded rationality*.[24] Instead of searching for total new solutions in a new political setting, values that have been established through "trial and error" and tested on the battlefield, are introduced and adopted in politics. Finding that these values are adequate in the new political settings, agents have no longer an incentive to devote further resources (time for information, trial and error etc.) to discover new ones.[25]

The historical evidence and our analysis thus indicates that phalanx warfare antecedated the introduction of democracy, and that values evolved in the phalanx evolved into democratic values. Still, there were historical cases were city-states using the phalanx were not democracies (like Sparta)[26] or were oscillating between democracy – oligarchy and

---

[23] These existed two Athenians by the name of Antiphon. The first one is the so-called Antiphon the sophist, known to posterity as a discussant with Socrates, (Xenophon *Memorabilia*), the second one being one of the "ten Athenian orators" of the so-called *Canon*. See Konstantinos Tsatsos, "Rhetoric," in *History of the Greek Nation*, Γ2, (Athens: Ekdotiki Athinon, 1972), 548-565 (in Greek). For analytical view of the implementation of a social contract in practise through the fiscal expansionary policy programs of Euboulos and Lykourgos during the second half of the 4th century in ancient Athens, see Nicholas Kyriazis and Emmanouil Marios L. Economou, "Social Contract, Public Choice and Fiscal Repercussions in Classical Athens," Paper Presented at the 12th Erfurt Conference on Fiscal Sociology, in October 12, 2012, in Erfurt.

[24] For the theory of Bounded Rationality see Herbert Simon, "Bounded Rationality and Organisational Learning," *Organisation Science* 2(1) (1991): 125-134.

[25] Nicholas Kyriazis, *Why Ancient Greece?* (Athens: Psychogios Publications, 2012), 17-22.

[26] Sparta had a particular "constitution". It was governed by two kings, who were usually but not always the military commanders, *five ephors*, who were more or less the governing body, *30 gerousiaste* who were a kind of senate, and a popular assembly of all adult male citizens, who voted on proposals made by the ephors, but

tyranny, as eg. Argos, Syracuse, Halkis, Eretria, Istiaia and other city-states on the island of Euboea during the 4th century, and Messina, Catanae and many other city-states in Sicily and lower Italy during the 5th and 6th century.

Historical evidence indicates thus that although the phalanx was a necessary condition for democracy, it was not a sufficient one. The hoplites-landowners class showed ambivalence between democracy, "limited democracy" (eg. democracy according to wealth criteria, like the Solonian Athenian of 560 BC, the short-lived 411 BC in Athens and the Athenian democracy after 322 BC) and oligarchy. During the 5th and 4th century some Greek city-states took a further decisive step, taking a "turn to the sea".[27] They transformed themselves from mainly land powers into sea-maritime powers. This transformation deepened democracy and gave it strength and durability.

Most ancient maritime city-states were democracies as long as they were maritime powers (with very short-lived non democratic "intermissions" as for Athens during 404-403 BC after the end of the Peloponnesian War). Samos, Corinth, Chios, Byzance, Rhodes (during the late 4th and 3rd centuries) and of course Athens. Already, ancient authors, such as Aristotle (*Politics* 1304a18-24; 1274a12-14) had recognized the link between democracy and seapower.[28] In the following section we analyse why seapower is almost a sufficient condition for democracy.

---

only on a yes or no basis, without having the authority to introduce or change proposals. P. J. Rhodes, *The Greek City States: A Source Book* (Cambridge: Cambridge University Press, 2007), 58-60 considers Sparta's political system as a "peculiar kind of oligarchy". On Sparta's values and norms, see also George Bitros and Anastasios Karayannis, "Morality, Institutions and the Wealth of Nations: Some Lessons From Ancient Greece," *European Journal of Political Economy* 26 (2010): 68-81.

[27] Nicholas Kyriazis, "Seapower and Socioeconomic Change," *Theory and Society* 35 (2006): 71-108.

[28] Ioannis Theodorakopoulos, "Aristoteles," *History of the Greek Nation* Γ2, (Athens: Ekdotiki Athinon, 1972) 486-511 (in Greek).

SEAPOWER, DEMOCRACY AND COMMUNITY OF INTERESTS

We analyse the relation of seapower, democracy and the community of interests with the case study of Athens, which was both the prototype democracy and for which we possess sufficient information from ancient sources to enable us to trace its transformation from a land to a seapower and from a tyranny into democracy.

During the sixth century, Athenian political history was chequered: Solon introduced a limited form of democracy in 594 BC, based on wealth criteria, which was abolished by the tyrant Peesistratos and his sons during 561-510 Then, Cleisthenes introduced a more encompassing form of democracy in 510-507, but still a limited one, because seemingly the poorer Athenians (about 80% of the total according to our previous calculations) had the right to vote, but not yet the right to be elected.[29]

In 482 BC, Themistocles introduced his *Naval Law*, which was voted in the Assembly and initiated Athens' "turn to the sea".[30] For the next 160 years, up to the Athenian defeat by the Macedonian fleet at Amorgos in 322 BC, Athens was the dominant seapower in the Eastern Mediterranean and the most representative democracy of the time.

The Naval Law revolutionized Athenian politics. Each warship, the trireme, required under normal conditions 180 rowers, 12 hoplites (as "marines"), 15 sailors (or "deck crew"), the master, the *Keleustes* (who beat the drum setting the various speeds of the ship) and the

---

[29] Andrew R. Burn, *Persia and the Greeks. The Defence of the West, C. 546-478 B.C.* (Stanford: Stanford University Press, 1984, reprint), 279-297.

[30] Nicholas Kyriazis and Michail Zouboulakis (2004), "Democracy, Sea Power and Institutional Change: An Economic Analysis of the Athenian Naval Law," *European Journal of Law and Economics* 17 (2004): 117-132; John R. Hale, *Lords of the Sea: The Triumph and Tragedy of Ancient Athens* (London: Gibson Square Books, chap. 2.

commander called *trierarchos*.[31] The about 180 Athenian ships present at Salamis required thus 32.400 rowers, and these could be provided only by the lower income class Athenians, the *thetes*, who up to then did not have political rights and did not provide military service, lacking the means to acquire the expensive hoplite equipment.[32]

We suggest that in special cases, as in Salamis, where the proximity of the land provided the necessary water and alimentation, and the narrow straights, which did not permit much manoeuvring by the ships but mainly direct confrontation, as was the tactical intention of Themistocles, the Athenian and Greek ships in general would have carried more hoplites than the usual 12. Under normal conditions, 200 ships would require 2.400 hoplites. We know from Marathon that Athens had at least 10.000 hoplites, and it seems absurd if the rest of them stood idle while the decisive battle took place!

But as rowers, they provided, for the first time in Athenian history military service, and thus, as explicitly promised by Themistocles when he brought his proposal to the Assembly, they acquired full political rights. All state positions (eg. "government", law courts, military ones) were open to them.[33]

---

[31] John Morrison, John Coates and N.B. Rankov, *The Athenian Trireme: The History and Reconstruction of an Ancient Greek Warship* (Cambridge: Cambridge University Press, 2000), 158-159.

[32] Each hoplite had to buy his own armor by his own means in order to participate in the phalanx formation. See Kurt A. Raaflaub, "The Breakthroug of Demokratia on mid-Fifth Century Athens," in *Origins of Democracy in Ancient Greec*e, eds. K. A. Raauflaub, J. Ober, R. W. Wallace, P. Cartledge, and C. Farrar (Berkeley: University of California Press, 2007), 129.

[33] For the financing of the Athenian fleet through t*rierarchy*, which was the most expensive liturgy, see Brooks A. Kaiser, "The Athenian Trierarchy: Mechanism for the Private Provision of Public Goods," *Journal of Economic History* 67 (2007): 4445-4480; Vincent Gabrielsen, *Financing the Athenian Fleet* (Baltimore, Meryland: John Hopkins University Press, 2010 repr.), chap. 1, 8. For the economic effects of the Athenian turn to the sea, see Kyriazis and Zouboulakis, "Democracy, Sea Power," 117-132.

A trireme was a microcosm of Athenian society, combining all its elements: The 170 rowers from the poorer class, who on land could have been less prosperous farmers, unskilled workers working for a daily wage etc., 12 hoplites of the more prosperous classes (self employed prosperous farmers but also some skilled workers and artisans, whose proportion increased rapidly as Athens was transformed from a mainly agricultural to a mainly "industrial" and services" economy).[34] The sailors who belonged also probably to the middle, "skilled" class, and three "officers", specialists who belonged to the prosperous upper classes. The ship's commander, the *trierarch*, certainly belonged to the wealthy class, and had to finance out of his own means the running expenses of the ship for one operational period (about 7-8 months per year).

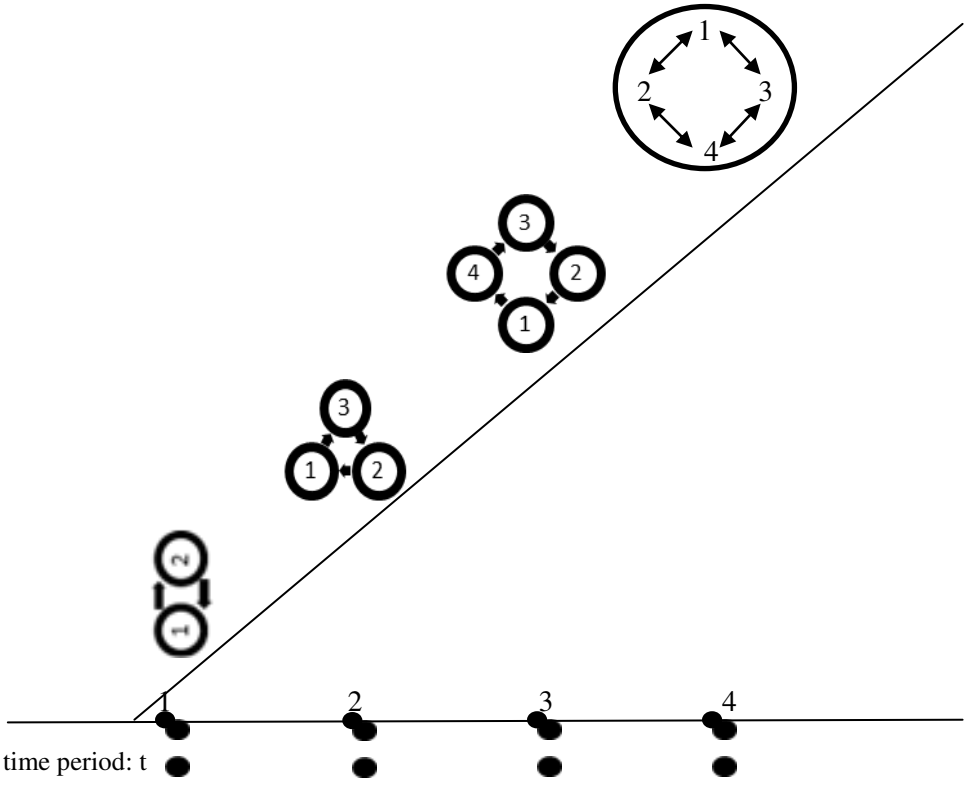
With the Athenian transformation into a seapower, all its citizens gave military service (and not just our estimate of the 20% wealthier ones who fought as hoplites) and acquired full political rights. Athens (and presumably the same applied to the other Greek seapowers) was no more an "elite democracy" of the relative by wealthier citizens, but an all-encompassing one. The values evolved in the phalanx, equality, trust, common purpose and will, applied also to the trireme's crew. The different groups of men on the ship had to combine into a whole in order to have an efficient fighting ship, on which victory and the survival of everybody depended. The important point is that these common values extended now also to the poorer citizens, who before were excluded as they did not participate in the phalanx.

Figure 1 summarizes this argument: It shows how a set of values evolves and enforces the adoption of further related values as an iterative process. Supposing for example that in time period 1, two values that have been cultivated through the phalanxes and the trireme,

[34] For this transformation, leading Athens to become the "first modern economy", see George Halkos and Nicholas Kyriazis, "The Athenian economy in the age of Demosthenes," *European Journal of Law and Economics* 29 (2010): 255-277 and the references given there.

such as trust (cycle 1) and will (cycle 2), affect each other, then, a new relative value such as common purpose or homonoia (cycle 3) might also be adopted in the next step (time period 2). Then, if at time period 2 this is the case, the mutual interaction of the three values (cycles 1, 2 and 3) might also lead to the adoption of a next value, say equality (cycle 4) on time period 3. This process might lead to an ongoing process of creating values in the next time periods (period 4 etc).

Fig. 1 Integration of a series of values to a new coherent whole



Under this simple figure we attempted to show how values that have been cultivated through warfare may lead to a coherent system of norms and ideas. But the combination of different skills (which were not present in the phalanx were every hoplite had more or less the same equipment and the same skills) had a further great importance for the working of democracy: As on the trireme everybody listened and obeyed the expert (eg. the rowers to the

Keleustes rhythm, everybody to the sailors when sailing with sails, to the master (who was the expert on navigation and sea conditions) or to the commander in battle), as citizens the Athenians applied their military experience[35] to the Assembly: the learned to listen and be guided by the experts.

On the triremes the Athenians acquired two very important types of knowledge: First the nautical combination of skills into a whole, and second the general idea, that some people were the experts and it made sense to listen to them. We suggest that this "being guided by the expert" was one of the most valuable lessons from service on ships, on which the efficient running and the duration and stability of Athenian democracy was based.[36]

Athenian political culture was thus to a great degree taken over from its naval-military culture. The shared experience, the bonds of trust and common purpose generated onboard the ships worked also as a general "glue of democracy". On board a trireme, poor rowers became well acquainted with the hoplites, but also with the wealthy commanders, in a way that he would never have the opportunity to acquire in "civil" life.

We get a glimpse of how important this was for Athenian political culture from the forensic speeches of the 4th century: Defendants and accusers always mention and take pride from their military service as trierarchs, and know well that this reminder will positively influence the judges, citizens elected by lot, the majority of whom would have already served

[35] It must be underlined, that since after Salamis the Athenian fleet, for all the 160 years of Athenian supremacy was always in operation (in various, but in general substantial strength) every Athenian citizen acquired this experience.

[36] In modern terms, we would speak of "knowledge aggregation". See Josiah Ober, *Democracy and Knowledge*, (Princeton: Princeton University Press, 2008), chap. 4 (networks, teams and experts) and chap. 5 (alignment: common knowledge, commitment and coordination) on this issue but without addressing the military influence on politics, as we do here.

on the triremes, some even on the particular ship or ships commanded and financed by the person giving the speech at the court.[37]

Lastly, the durability of the Athenian democracy was based on a community of economic interests. The transformation into a maritime power benefited (perhaps to different degrees) all Athenians: poor Athenians benefited from the remuneration (out of the public budget) as rowers on the triremes, but also as workers on the extended public works programmes (there were two main periods, one during 450-430 BC under Pericles and one under Lycurgus, 338-323 BC), but also as workers on the harbour services, the market place, or self-employed artisans, but also when doing remunerated public service as members of juries (courts) officials elected by lot, participating at the Assembly etc.

The middle (hoplite) classes benefited from higher prices for their agricultural products (which tended towards specialised high quality-high price products, some for the export markets, like honey, figs, olive oil, wool, wines, instead of bulk goods like cereals), but also as skilled artisans, artists etc. (Stone masons, shoe makers, jewellery makers, potters and in general independent manufacturers) and in the services sector, as eg. sailors on merchant vessels. The rich benefited as entrepreneurs in manufacturing, merchants, bankers etc. [38] Homonoia and social cohesion was based in the Athenian case and we believe also in the other maritime Greek states for which we lack sufficient information, on common interest and prosperity.

---

[37] Josiah Ober, *Mass and Elite in Democratic Athens* (Princeton: Princeton University Press, 1989), 53-73 presents and analyses such cases.

[38] These exists a substantial and growing literature on the ancient Athenian economy. See for example Edward Cohen, *Athenian Economy and Society: A Banking Perspective* (Princeton: Princeton University Press, 1997), chap. 1, 5-6; Takeshi Amemiya, *Economy and Economics in Ancient Greece*, (London: Routledge, 2007), chap. 2; George Bitros and Anastasios Karayannis (note 26: 68-81) and Halkos and Kyriazis (note 33: 255-277).

Table 1 summarizes our findings: It shows that the values that gradually developed as an entail of the functioning of the phalanx and the triremes, such as self-consciousness, cooperation, cohesion, *homonoia* (same-mindness), equality, trust, solidary etc (figure 1) were "diffused" from warfare to the political field and became self-consciousness *isonomia* (equality to the law), *isegoria* (freedom of speech), *homomoia,* concord and patriotism. Democracy seems to have gone hand in hand with cohesion and solidarity throughout all over the Athenian society. Thus, Athenians achieved what the ancient politician Demades referred to as "the glue of democracy".

Athenians found it beneficial to entrust their future prosperity as citizens, on ambitious politicians that had already proven their capabilities in warfare, such as Themistocles, Pericles, Cimon etc. Entrusting government to former successful military men seems to have been a common practice even in recent historical cases, such as the United States (George Washington, Abraham Lincoln, Ulysses Grant, Dwight Eisenhower) and France (Napoleon Bonaparte, Charles De Gaulle) etc.

Values that have been established through "trial and error" and tested on the battlefield were democratically introduced and adopted in politics aswell. Under this method, the Athenians had the aptitude to introduce ready to use solutions when complex issues seemed to have driven to stalemate by utilising the skills of their leaders.

Finally, the case of the Athenian Democracy approves, that democratic procedures can lead to positive outcomes. Under concord, homonoia and coordination, cohesion, trust, etc which better emerge voluntarily through democratic procedures, a community of interests that leads to a *Pareto better* or a positive sum game situation (in economic terms) can be achieved, as the case of the recruitment of the poor Athenians in the fleet (during the 5^{th} century) or the expanded public works programmes (during the 2^{nd} half of the 4^{th} century BC) approve.

Table 1: Transformation and diffusion of military into political values

Values				
Warfare mechanisms	**Military values**		**Means**	**Emerging political values**
Hoplites and *phalanx* formation *Triremes*	self-consciousness cooperation cohesion "homonoia" (same-mindness) equality, trust obedience teamwork solidary	bounded rationality	adaptation of known values, solutions, networks, "cues". "cognitive glue" being Guided by the expert	Self-consiusness *isonomia* (equality) *isegoria* (freedom of speech) *homomoia* concord coordination patriotism Abiding by Assembly's and courts decisions, obeying the law community of interests positive sum game

Conclusions

We have analysed the emergence of the new warrior, the *hoplite*, and the new tactical formation, the *phalanx*, and the values they created. Then, we traced the influence of these values on the emergence of democracy and its values and we suggested that the hoplite and the phalanx was a necessary, but not a sufficient condition for democracy.

We then traced the turn to the sea of some city-states, taking Athens as a case study and established it as a sufficient condition for ancient democracy. Further areas of research are the analysis of other city-state cultures (among those identified eg. by Hansen's *Polis*[39]) to see if similar links between military developments and democracy can be established. A particular interesting example would be the examination of the Phoenician maritime city-states like Tyre and Sidon and their form of government, or the Greek proto-federations that mainly emerged during the 4th century BC, such as the Achaean and the Aetolian Leagues.[40]

Further, European late medieval and Renaissance states should be analysed to demonstrate if similar developments took place. We believe that the Swiss case does show a similar pattern: The Swiss adopted during the 14th and 15th century a phalanx formation[41] and developed direct democracy as a government, which they use till today.

Also, some recent studies[42] indicate that in the early modern period, sea and maritime powers, like the United Provinces (Dutch Republic) in the 16th and 17th century and England, were more democratic (although not real democracies) than any other contemporary state. In addition, other authors[43] underline the link between sea and maritime power and the community of interests it creates.

Further research into this area, including also the Italian maritime medieval and Renaissance city-states like Venice and Genoa, we believe, it will prove fruitful.

---

[39] (note 13: 7-24).

[40] We propose such an analysis in a series of forthcoming papers.

[41] See Charles Oman, *The Art of War in the Middle Ages 378-1515* (New York: Cornell University Press, 1885 repr. 1968), ch. V; Douglas Miller, "The Swiss at War, 1300-1500", *Osprey Men at Arms* 94 (1979): 4-40.

[42] Kyriazis, "Seapower and Socioeconomic Change," 71-108.

[43] Jan Glete, *Navies and Nations: Warships, Navies and State Building in Europe and America 1500–1860*, Almquist and Wiksell International, 1993), Vol. 1; Nicholas Rodger, *The Safeguard of the Se*a (London: Harper Collins Publishers, 1997), chap. 17.

References:

George Bitros and Anastasios Karayannis, "Morality, Institutions and the Wealth of Nations: Some Lessons From Ancient Greece," *European Journal of Political Economy* 26 (2010): 68-81.

Alfred S. Bradford, *Leonidas and the Kings of Sparta: Mightiest Warriors, Fairest Kingdom* (Santa Barbara, California: ABC-CLIO, 2011).

Andrew R. Burn, *Persia and the Greeks. The Defence of the West, C. 546-478 B.C.* (Stanford: Stanford University Press, 1984, reprint).

Paul Cartledge, "Hoplites and Heroes: Sparta's Contribution to the Technique of Ancient Warfare," *The Journal of Hellenic Studies* 97 (1977): 11-27.

Alexandros Despotopoulos (1972), "The Art of War of the Greeks, 1100-336," in *History of the Greek Nation*, Γ2 (Athens: Ekdotiki Athinon, 1972), (in Greek).

Mogens Herman Hansen, *The Athenian Ecclesia: A Collection of Articles 1976-1983* (Viborg: Special Trykkeriet-Vyborg, 1983).

Mogens Herman Hansen, *The Athenian Democracy in the Age of Demosthenes* (Bristol: Classical Press, 1999).

Mogen Herman Hansen, *Polis* (Oxford: Oxford University Press, 2006).

Victor Davis Hanson, *The Western Way of War* (Berkeley and Los Angeles: University of California Press, 2009).

John R. Hale, *Lords of the Sea: The Triumph and Tragedy of Ancient Athens* (London: Gibson Square Books.

Mark Healy, "The Ancient Assyrians", *Osprey Elite* 39 (1991).

Mark Healy, "New Kingdom Egypt," *Osprey Elite* 40 (1992).

Peter Krentz, "The Nature of Hoplite Battle," *Classical Antiquity*, 4(1) (1985).

Nicholas Kyriazis and Michail Zouboulakis (2004), "Democracy, Sea Power and Institutional Change: An Economic Analysis of the Athenian Naval Law," *European Journal of Law and Economics* 17 (2004): 117-132.

Nicholas Kyriazis, "Financing the Athenian State: Public Choice in the Age of Demosthenes," *European Journal of Law and Economics* 27 (2009): 109-127.

Nicholas Kyriazis, "Seapower and Socioeconomic Change," *Theory and Society* 35 (2006): 71-108.

Nicholas Kyriazis, *Why Ancient Greece?* (Athens: Psychogios Publications, 2012), 17-22.

Nicholas Kyriazis and Xenophon Paparrigopoulos, "War and Democracy in Ancient Greece," *European Journal of Law and Economics* (2012): DOI 10.1007/s10657-012-9352-1.

Nicholas Kyriazis and Economou Emmanouil Marios L., "Macroculture, Sports and Democracy in Classical Greece," Paper Presented at the 25th Heilbronn Symposion in Economics and the Social Sciences, June 21-24th, 2012, in Heilbronn.

Nicholas Kyriazis and Emmanouil Marios L. Economou, "Social Contract, Public Choice and Fiscal Repercussions in Classical Athens," Paper Presented at the 12th Erfurt Conference on Fiscal Sociology, in October 12, 2012, in Erfurt.

Nicholas Kyriazis, and Economou, Emmanouil Marios L., "Property Rights and Democratic Values in Bronze Age and Archaic Greece," MPRA Paper 42399 (University Library of Munich, Germany, 2012).

Nicholas Kyriazis and Economou Emmanouil Marios L., "Macroculture, Sports and Democracy in Classical Greece," *European Journal of Law and Economics* (forthcoming).

Josiah Ober, *Democracy and Knowledge: Innovation and Learning in Classical Athens* (Princeton and Oxford: Princeton University Press, 2008).

Kurt A. Raauflaub and Robert W. Wallace, "Peoples Power and Egalitarian Trends in Archaic Greece," in *Origins of Democracy in Ancient Greece*, eds. K. A. Raaflaub, J. Ober, R. and W. Wallace, (Berkeley and Los Angeles: University of California Press, 2008), 49.

P. J. Rhodes, *The Greek City States: A Source Book* (Cambridge: Cambridge University Press, 2007).

Eric W. Robinson, *The First Democracies: Early Popular Government Outside Athens* (Stuttgart: Franz Steiner Verlag, 1997).

Eric W. Robinson, *Democracy Beyond Athens: Popular Government in the Greek Classical Age* (Cambridge: Cambridge University Press, 2011).

Michael B. Sakellariou, "Towards Greek Unity," in *History of the Greek Natio*n, Γ2 (Athens: Ekdotiki Athinon, 1972), 34-95 (in Greek).

Nicholas Sekunda, "The Ancient Greeks," *Osprey Elite* 7 (1986).

Nicholas Sekunda, "The Persian Army 560-330 BC", *Osprey Elite* 42 (1992).

Herbert Simon, "Bounded Rationality and Organisational Learning," *Organisation Science* 2(1) (1991).

Greg R. Stanton, *Athenian Politics, C. 800-500 B.C.: A Sourcebook* (London: Rutledge, 1990), 19-20.

Ioannis Theodorakopoulos, "Aristoteles," in *History of the Greek Nation* Γ2, (Athens: Ekdotiki Athinon, 1972) 486-511 (in Greek).

Konstantinos Tsatsos, "Rhetoric," in *History of the Greek Nation*, Γ2, (Athens: Ekdotiki Athinon, 1972), 548-565 (in Greek).