Chapter V. Conservative-restorative policies and prosthetics in ancient capitalism

Section 1. Conservative-restorative policies and prosthetics in ancient Greece

Origins of the ancient master drama in Greece

Private ownership of land emerged in Minoan and Mycenae palace cultures after the Neolithic Age and during the late Bronze Age. The Minoan culture, mainly in Knossos on Crete, lasted from around 2600 to 1450 BC. The Mycenae culture, e.g., Mycenae, Pylos, and Tiryns, conquered the Minoan in its last centuries and lasted from around 1600 BC to around 1200 BC.[1] Appropriations of agricultural land from small farmers by latifundia owners are believed to have taken place and led to social conflict. Some authors connect the downfall of the Mycenae palace culture with earthquakes or the breakdown of trading systems with Phoenicia and social rebellions that followed agrarian conflicts.[2] A general regression into a more primitive stage of evolution occurred thereafter. Palaces, trade, bureaucracy, and the art of writing (Linear B) disappeared; tools and pottery became simpler. We enter into what historians call the Greek "dark ages" or the Greek "Middle Ages" (lasting from around 1100 BC to 700 BC). Migrations occurred at that time, e.g., the Dorians moved to the Peloponnese.[3] The migrating tribes would grab the land from their displaced predecessors; afterwards, an internal redistribution within the winning tribes occurred. Given Greece's geography, with many curvy coastlines, isthmuses, islands, peninsulas, and mountains, this took place in over a thousand[4] mostly small, en-

1 *Ober* (2016) page 119.

2 *Burn* (1990) page 56 attributes the decay of the Mycenae palace culture to the fact that "the palace people… had become so far removed from the peasantry that they could no longer trust them as soldiers." Other explanations, earthquakes, drought, and raids by sea people are given by *Waterfield* (2018) page 17.

3 On migrations within Greece, into Greece, and around Greece, see *Cartledge*, Historical Outline c. 1500 – 146 BCE, page 54–60, in Cartledge (1998) page 38. *Burn* (1990) page 61.

4 *Thommen* (2019) page 26.

capsulated, and separated poleis.[5] Attica, roughly the size of Luxemburg,[6] was the largest; Sparta on the Peloponnese followed; Syracuse in Sicily was later to become the third largest. Hesiod, born before 700 BC, in view of the land appropriations, recommended that farmers "always be in good time" in agriculture, then "you will buy another man's farm, not he buys yours".[7] Hesiod also recommends remaining free of debt and having only one son to keep the land together.[8] The ancient social master drama was, nevertheless, probably the main cause that triggered the Greek outbound colonization, which began between 750 and 600.[9] As everything in Greece, it was a small numbers game.[10] The families who had kept sufficient lots of land stayed in Greece while many who did not, approximately forty thousand adult males, left.[11] The colonists preferred costal places or offshore islands around the Aegean Sea, Black Sea, Adriatic Sea, and Mediterranean, from Spain,[12] North Africa, Southern France, Massilia, today's Marseille, to Sicily, the West cost of today's Turkey and Odessa. Plato coined the expression that they were sitting around the Mediterranean and the Black Sea "like ants or frogs around a lake".[13]

After the Greek "Middle Ages" we reach what historians call the "archaic period" of Greek history. This period lasted from around 800 to 500 BC; the "classical period" (479 BC to 323 BC) followed thereafter.[14] Like everywhere in ancient history, the two sides of our distinction, between wealth accumulation through robbing and through exchange (see Chapter 1 and 3), mutually influenced each other. The Greek land-owning citizen farmers, the *hoplites*, worked their fields and fought expansive

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5 *Burn* notices: "…our maps usually *under*emphasize the disunity of classical Greece" (page 63).

6 See *Cartledge*, Power and State, page 149, in *Cartledge* (1998).

7 Hesiod's book was called in his *Works and Days*. Quoted from *Burn* (1990) page 76.

8 See *Thommen* (2019) page 26 and *Clauss* (1993) page 55.

9 The significant problem of displaced ("drifting") peasants moving from north China to the south following the second century AD was dealt with by assigning land to them and providing them with tools. They were also partially exempted from taxation and supported by relief measures if locusts, draught and floods hit. See *Ebrey*, The economic and social history of the later Han, page 618 et seq.

10 See *Cartledge*, Power and State, page 140, in Cartledge (1998). *Waterfield* (2018) page 20. *Graeber* (2011) page 182, sees Greek colonization as a means to forestall future debt crises.

11 See *Cartledge*, Historical Outline c. 1500 – 146 BCE, page 54–60, in *Cartledge* (1998). Attica seems to have had enough land to nourish the Athenians and Laconia to nourish the Spartans, so the Athenians and Spartans mostly stayed home. The colonists appear to have largely come from tighter places and islands. (*Thommen* (2019) page 50, 58; Burn (1990) page 118).

12 Burn (1990) page 111.

13 *Plato*, Phaidon, 109 St 1 A.

14 On the periodization of Ancient Greece, see *Cartledge*, Historical Outline c. 1500 – 146 BCE, page 54–73, in *Cartledge* (1998).

and defensive wars. How did these two ways of goods and wealth procurement (or of defense against foreign goods procurement by violence) affect each other?

Peaceful economics and violent prater-economics

Interestingly, we hear a lot about more about the negative impact of the peaceful exchange economy onto goods procurement by violence than the other way around. The dynamics of the peaceful exchange economy obviously greatly damaged the social base of the poleis' military. Athens had an average "gross" population of around 250,000 of which Athens' citizens, all males, who also supplied the core of the military, were around 30,000 to 50.000 in the 6th and 5th century, hence the time from Solon's reforms to the end of the Peloponnesian war. In bad times, e.g., during the Persian and Peloponnesian wars, it dropped,[15] in times of prosperity, e.g., after the Persian wars, the population grew and it may have doubled between 480 and 431.[16] We should assume that the number of Athens' free farmer warriors was still lower in the early sixth century, when Solon was archon, say at 30,000. According to a widespread opinion, the distribution of ownership of land in Athens was still comparatively equal in the 6th and 5th centuries BC. *Ober* reports that 20 % of Athens' citizens did not own land, 7.5 to 9 % owned 30–35 % of the land and the remaining 70–75 % owned 60–65 % of the land.[17] If we apply these percentages to 30,000 citizens of Athens, then we come to assume that approximately 6,000 citizen would not have owned land, and that 21,000 citizens would have owned 60 % of the land.

Hoplite warfare was introduced somewhere between the 7th and the end of the 6th century.[18] Allegedly, Athens and Platea had 10,000 hoplites in the battle of Marathon in 490 BC, of which the vast majority would have come from Athens,[19] say 9,000. If we assume the number of Athens' hoplites to be less a hundred years earlier, then they may have been around 6,000. Sparta mostly had around 5,000 hoplites.[20] As hoplites were "mostly middling peasants with some resources of their own",[21] or as Cartledge puts it, "citizen landowners, people who on average owned

15 This appears to be roughly the majority opinion of historians. A disease between 430 and 425 BC may have claimed 75,000 lives (*Ober* (2016), page 302), 20,000 lives (*Thommen* (2019) page 205) or one quarter to a third of the population (*Günther* (2011) page 216).

16 *Grant* (1992) page 64. *Burn* (1990) sees it peaking at 70.000 under Pericles (page 215).

17 *Ober* (2016) page 143 with further references.

18 According to *Forest* (1986) page 25, it appears on vase painting in the middle of the 7th century BC. *Waterfield* (2018) page 62 argues that it was introduced only at the end of the 5th century BC.

19 *Forest* (1986) page 37 et seq.

20 Forest (1986) page 33.

21 *Grant* (1992) page 46; *Günther* (2011) page 177. Other authors argue that hoplite equipment was comparatively cheap (*Ober* (2016) page 202).

about 5 and 10 acres of land",[22] they must have constituted about 30–40 per cent of the adult male citizen population of a city state.[23] Accordingly, the fault line ran straight through the core of the Athens army apparatus between farmers who were at risk of losing their land and others who were likely to remain safe. A loss of a farm to a wealthy neighbor would, off course mean a loss of a hoplite for the army and weaken Athens' military might.

Farmer-hoplites were, sure enough, killed in military action, and had to be absent from their fields during campaigns. Astonishingly, this appears to have been less damaging to the hoplite army as such. While wars in the 6th and 5th centuries were more the rule than the exception, a number of factors moderated their effect. First, hoplite soldiers would normally have sons who would literally take over the hoplite equipment as well as the land from their fathers; the loss of the land would end the existence of a "farmer's position", the death of a senior farmer not necessarily. Second, in fact, the damage of warfare to agriculture was bearable as campaigns took mostly only place in midsummer, when there was no work to do on the fields,[24] and family members or slaves, which even small farmer sometimes had, took over the work in the absence of the hoplites. Third, if it came to battles, while hoplite phalanx fighting was an incredibly courageous face-to-face fighting, casualty-rates and killing-rates were nevertheless limited. This was partly due to conventions and symbolic elements. The battle began when both sides were properly deployed in formation and, more importantly, it was considered to be decided upon if one phalanx was pushed back or dissolved (there were no reserves). Consequently, some fights only lasted for minutes. Fourth, if a phalanx had been brought into disorder, then the hoplites would throw away their heavy equipment (weighing around 23 kilograms) and their helmet, which limited movability and sight, to run away. Dishonorable, as it was, it gave the advantage to the fleeing hoplites as the pursuing phalanx still had to carry their heavy weapons.[25] This was, perhaps, a practical reason for why pursuing dissolved phalanxes (absolutely contrary to Clausewitz' recommendations) never became a relevant factor in the 6th century and throughout most of the 5th century. However, it does not answer why lighter troupes or cavalry were not held in reserve to do the killing after the battle's culmination. The answer to this question may be found in symbolic moments or in the fact that escalation to "absolute war" (in Clausewitz's sense) was certainly not in the interest of hoplite-farmer armies. The victorious phalanx would, rather, only erect a symbol of its victory on the battlefield; the loser would carry their armor, their wounded, and their

22 *Cartledge*, War and Peace, page 168, in *Cartledge* (1998).

23 *Cartledge*, War and Peace, page 168, in *Cartledge* (1998).

24 *Ober* (2016) page 61. The Mediterranean was less dangerous in summer (loc. cit.).

25 *Clauss* (1993) page 90.

dead away – and that was it.[26] Accordingly, the winning side in hoplite warfare often had only as few as 5 % of its hoplites killed and the loser around 10 % or 15 % to 20 %.[27] As a consequence, heroic hoplite phalanx fighters could grow rather old. If a summer campaign occurred every second year, winning hoplites would statistically reach a 100 % probability of death only after 20 years; if they began campaigning at 18, then that would probably be at around the average life expectancy of the time.

It is for these reasons that the risk to hoplite farmers of losing their existence was indeed higher back home, where there were plenty of "other men" who wanted to "buy their land".[28] This may explain why Solon argued, in his report on his laws, that without these laws "the polis of Athens would have been bereaved of many men"[29] or why Burn explained compromises in conflicts between the aristocracy and poorer farmers as follows: "It was not so much the danger of revolt, for the rich had the best weapons; but what would become of a state with a dwindling army?"[30] A well-known event in the Peloponnesian war, around 170 years later, speaks volumes about the importance of hoplites in ancient Greece: In the Peloponnese war, the Athenians captured 120 Spartan hoplites in a coup at Pylos (on the small island opposite from modern Pylos). While this appears to be a very modest number, it seems that holding these few hostages enabled Athens to negotiate the interim Nicias peace in 422 BC.[31]

Draco, the reformer

Draco became archon in Athens in 621 and enacted what would later be called "Draconian laws". Little is left thereof, but his laws, which were displayed on wooden pillars,[32] must have strengthened the supremacy of statehood structures and the state monopoly of criminal prosecution, e.g., by prohibiting vendettas and feuds[33] (which normally works against the power of the old noble and wealthy families). Draco's laws, their harshness notwithstanding, may also have limited the discretion of the

26 It much limited the casualty rate. See *Waterfield* (2018) 160 et seq. Philipp II of Macedonia did away with this restriction and had his cavalry pursue dissolved enemy formations and kill them up to the last man (*Clauss* (1993) page 90).

27 *Waterfield* (2018) page 160 et seq: 5 % and 15 % to 20 %; *Cartledge*, War and Peace, in Cartledge (1998) page 168: 5 % and 10 %.

28 See again Hesiod's phrase "you will buy another man's farm, not he buys yours", quoted from *Burn* (1990) page 76.

29 Quoted in *Aristotle*, The State of the Athenians, 12.4, translated from German by the author based on a translation from Greek by M. *Dreher*, see *Günther* (2011) page 70.

30 Burn (1990) page 119.

31 *Thucydides*, The history of the Peloponnesian war, chap. XII; *Günther* (2011) page 203. According to *Cartledge*, War and Peace, in Cartledge (1998) page 179, two hundred and ninety-two Spartan hoplites were captured. See also *Fisher*, Rich and Poor, in Cartledge (1998) page 93.

32 *Thommen* (2019) page 59.

33 *Thommen* (2019) page 50, 59; *Clauss* (1993) page 61.

jurisdiction by the ruling aristocracy, the *eupatrids*. In the late 7th century BC, right after Draco, there was again great social discontent because small farmers, the *georgoi*, had either lost or were at risk of losing their land to their wealthier aristocratic neighbors.[34] Like everywhere, this appears to have happened after they had taken out debt in distress. They were then often sold into slavery abroad or their wives and daughters were made to become prostitutes.[35] Others had to accept long-term arrangements with rich landowners,[36] under which they were lastingly – until the repayment of debt with interest – obliged to deliver a share of their harvest. It appears that they were called *hektemoroi* (six-part-men), but it is not so clear whether it meant that they had to deliver one sixth[37] or five-sixth of their harvest[38] – although this is a dramatic difference.[39]

Solon, the reformer

The squeeze of small peasants, whatever aspect most contributed thereto, also led to the famous *reforms of Solon of 594 BC*. It appears that the small farmers and the

34 *Günther* (2011) page 60, reports of unrest and civil wars (*staseis*) in many poleis since the late 7th century BC, without connecting them to the agrarian question.

35 *Clauss* (1993) page 61.

36 *Fisher*, Rich and Poor, in *Cartledge* (1998) page 90.

37 *Waterfield* (2018) page 79. Waterfield appears to support the view that the *hektemoroi* had to give away one sixth of the harvest (with reference to *Aristotle*, The Athenian Constitution 6.1). However, later he seems to imply that one sixth was only the monthly interest. *Günther* (2011) page 71 and *Clauss* (1993) page 62, also believe that one sixth had to be given away.

38 *Grant* (1992) page 88 ("probably means that… they had to pay five-sixth of their produce to their creditors…").

39 One sixth seems moderate in relation to Sparta's helots (from the conquered area "Helos"). (*Thommen* (2019) page 84; *Waterfield* (2018) page 107), who had to deliver *half* of their harvest (*Grant* (1992) page 86. *Thommen* (2019) page 86). But the land worked by the Helots in Messenia was much better than the land in Attica. Possibly more importantly, the Athenian peasants were proud free hoplite-citizens; therefore, one sixth might have already caused a great stir-up. Allegedly, there was, at the time, also a switch from producing grains locally in Attica to importing grains from the Black Sea, especially from Crimea and today's Ukraine, as well as a prohibition of the export of grains. This shifted the production in Attica to olives and wines. Small peasants, however, the argument goes, did not have the capital to plant olive trees and grapevines (*Rohlfes/Rumpf* (1970) page 9). This is supported by olive trees requiring one generation before the olives could be reaped; vineyards also needed significant time (*Ober* (2016) page 200). If, thus, small peasant could not switch and stuck to grains, the imported grains could have lowered the market price and ruined them, particularly as they only had marginal land in remote hills (*Burn* (1990) page 119). Ultimately, Hesiod had already made the point that the lack of primogeniture heritage laws rendered allotments so small that they were no longer viable (*Grant* (1992) page 64, 88; *Fisher*, Rich and Poor, in *Cartledge* (1998) page 88).

aristocrats of Athens explicitly agreed to assign the task to work out a settlement to Solon when he was made archon in 594 BC. What he delivered, the laws of Solon, just as before Draco's laws, were publicly displayed on wooden pillars.[40] First, enslavement (of men, women and children) as a means of execution was prohibited. Greek citizens who had already suffered this fate were even repurchased, if they could be tracked down. The number affected, and resulting costs, must have been significant; Burn believes that the rich had to pay heavily for it.[41] Second, all outstanding debt was cancelled and, consequently, in symbolic acts, the boundary markers on mortgaged land were swept away (*seisakhtheia*).[42] Conversely, interest already paid or excessive interest had to be repaid.[43] Third, most argue that Solon abolished sharecropping.[44] That understood, there was, fourth, clearly no redistribution of land, which could only have been achieved through a partial expropriation of the Greek aristocrats and nothing was enacted, much like elsewhere, to disallow the future sale of the debt-free land to large landowners. Fifth, some argue that Solon set limits on the amount of land that one man could own in Attica.[45] Sixth, some also argue that large landowners had enclosed public land and that Solon ordered them to disenclose it.[46] Finally, there was no prohibition for small landowners to take out new loans and there was, if such new loans were not properly repaid, also no restriction for creditors to execute in the land again. Some authors believe that the interest rates were, though, limited to a more endurable level for the future.[47]

In summary, Solon's reforms greatly mitigated the problem for the then-victims for the moment and limited small farmers' downward risk in the future, but they did nothing to stop the decay of small peasants as such.[48] Solon either accepted that the effects of his reforms would only be very transitory or he was hoping for something surprising, new, and good to happen. He was actually not disappointed. The time

40 *Cartledge*, Power and the State, page 140, in *Cartledge* (1998)

41 *Burn* (1990) page 123 et seq.

42 *Waterfield* (2018) page 79.

43 *Burn* reports that this request was raised in Megara (1990) page 113). It was later also raised in Rome (*Mommsen* (1976) volume 1 page 315 et seq, volume 3 page 260).

44 *Forest* (1986) page 29. However, *Waterfield* (2018) page 79, argues that Solon did "not make debt-bondage illegal – a man may still have had to repay debt with labor or services – but he extracted the deadly sting of potential enslavement" (page 79).

45 *Waterfield* (2018) page 76.

46 *Waterfield* (2018) page 79 with reference to Solon F. 36 4–7 and *Aristotle*, Politics, 1266 b 17–19.

47 *Grant* (1992) page 88. According to Grant Solon restricted "the export of grain, by which large farmers had ruined the poor driving up the price of corn at home" (page 64). That is unclear. Exporting corns and a higher corn price should normally have helped small farmers. It might have damaged other poor, but hardly farmers.

48 Solon obviously obliged sons to support their fathers in their old age if the father had allowed them to learn a handicraft (*Günther* (2011) page 72). That seems like easing the way of small farmers out of peasantry, but not as a measure to maintain small farmers.

between Solon and the end of classical Greece was littered by a series of events and measures that, while they did not halt the centralization of land in the hands of the aristocracy, softened the social consequences thereof quite effectively.

Peisistratus and his sons, tyrants as reformers

Solon also made significant constitutional reforms, thereby giving stronger rights to the middle and poorer classes. In particular, he established a people's "council of hundred men", in addition to the archons, competing against the aristocratic Areopagus, and assigned more power to the general people's assembly, the *Ekklesia*. After Solon, it became customary to distinguish three areas in Athens with different social situations and political preferences: *pediakoi*, the inhabitants in the plains around Athens, mostly wealthy latifundia owners with aristocratic preferences; the *hyperakrioi* in the hills-districts further away from Athens, poor peasants, including marginal farmer-hoplites with democratic preferences, who often supported Peisistratus; and, finally, the *paralioi* in the coastal region, craftsmen, merchants, seamen, and salary workers who would later also be oarsmen of the trireme fleet, who had mixed political preferences.[49] This block-building and Solon's constitutional reforms strengthened popular opposition and opened up new channels to voice requests of threatened farmers.[50] This, in fact, eased the way for the tyrant *Peisistratus* who is said to have come to power mainly through the support of the *hyperakrioi*, the marginal hoplite-farmers, from the hill-districts.[51] Two attempts to grab power by Peisistratus, in 560 BC and 556 BC, had only succeeded for a few years,[52] but his third attempt in 546 BC made him, and later his sons, tyrants for altogether 36 years. He collected a direct ten percent tax on the produce and partially used it to grant loans to small farmers[53] to purchase ploughs and oxen.[54] It is plausible that these measures, together with Solon's prior debt releases, helped marginal peasants palpably for the time being. "Production soared", Burn optimistically writes and adds, with a view of small farmers, "…and the debts were easily repaid".[55] It is, yet, even more important that Peisistratus, and his sons Hipparchus and Hippias (ruling 546 until 510 BC), invented a new economic practice, which overlaid the ancient master drama at the end

49 *Thommen* (2019) page 68. Cleisthenes used the somewhat different three sectors, city (*asty*), mainland (mesogeion) and cost (*paralia*) and blended them in his *trittiyes*, see *Thommen* (2019) page 113.

50 *Burn* (1990) page 123.

51 *Fisher*, Rich and Poor, in; *Cartledge* (1998) page 81.

52 *Waterfield* (2018) page 76 et seq.

53 *Ober* (2016) page 224. *Thommen (2019)* page 69.

54 *Burn* (1990) page 124 et seq.

55 *Burn* (1990) page 124.

of archaic Greece and in classical Greece. While Peisistratus and his sons did not engage in much warfare,[56] they made material construction investments in Athens' infrastructure, such as in water supply and in representative buildings, temples, and public monuments, likely on the Acropolis, and in a public park north west of the Acropolis,[57] which provided tangible employment and income alternatives outside of agriculture. *In other words, prosthetic employment-generating spending made its appearance*. Undoubtedly, this increased production; for instance, we know of a flourishing period in Athens' handicraft ceramics production and exportation of black and red figure ceramics[58] and Hipparchus allegedly used private means to have Homer's Iliad and Odyssey written down for the first time.[59] Archaeologists believe that they are able to detect an increase in the planting of olive trees in the period of Peisistratus and his sons, which they take to be a sign of a prevailing confident long-term outlook;[60] hence, the exact opposite of high liquidity preference.

Ancient prosthetics and the Persian wars

After Peisistratus and his sons, we see further prosthetics mitigating the ancient master drama, which were now often connected to warfare. The Athenian hoplite force of 10,000 hoplites[61] under Miltiades won a surprise victory at Marathon against Darius I in the first Persian war in 490 BC. *Themistocles*, expecting a further Persian attack, thereafter brought the Athenian marine up, from merely twenty ships in 500 BC,[62] to two hundred or even three hundred triremes for the second Persian war.[63] Each trireme had around two hundred rowers at three levels. Even based on only two hundred triremes, Athens, thus, paid up to a total of 40,000 people as oarsmen, officers, or other crew at campaign seasons' peaks. Triremes were mainly ramming-tools and had little spare room. They could, thus, not stay at sea for long and needed nearby harbors and a significant number of people to support them in Piraeus and elsewhere. The triremes, of course, had to be built before, and, prior to that, wood had to be procured and to be transported and new docks and even a new harbor had to be constructed.[64] Themistocles had set into motion an enormously huge investment, which healed the economic wounds of

56 *Burn* (1990) page 124 speaks of "a long generation of peace, which the tyrants gave to Athens (and which) saw the laying of strong economic foundations…".

57 *Waterfield* (2018) page 83.

58 *Ober* (2015) page 230.

59 *Günther* (2011) page 74.

60 *Burn* (1990) page 124.

61 *Ober* (2016) page 243.

62 *Günther* (2011) page 119.

63 *Cartledge*, Power and State, in: *Cartledge (1998)* page 179.

64 *Burn* (1990) page 159.

displaced small farmers' much like World War II created employment after the Great Depression.

Concerning the financing of these prosthetics: The operation of one trireme with 200 men is said to have cost one talent per month, which corresponds to 6,000 drachmae per month (1 silver talent = 60 minas = 6,000 drachmae = 36,000 obols) and to 200 drachma per day, hence one drachma per man per day.[65] This appears to also be the normal daily pay in the 5th century.[66] Other authors estimate the costs of a trireme to be lower than that. According to Cartledge, crew men in triremes were paid half a drachma a day and this was also the normal pay in the period prior to the Peloponnesian war. Accordingly, a trireme's crew would have cost half a talent per month[67] Waterfield estimates that 200 triremes with 40,000 men had cost "more than ten thousand drachmas a day",[68] which would mean that there had been only costs of a quarter of a drachma per man per day. Anyhow, the fleet of triremes created a very significant volume of employment.

Themistocles' investment had been well made. Darius' son Xerxes, in fact, gathered massive forces of likely 150,000 land troops, including 8,000 cavalry and 800 warships, constructed a bridge over the Hellespont, and, beginning in 483 BC, even built a 2,200 meters long canal through the Athos peninsula in Northern Greece (the Easternmost of the three "fingers" of the Chalcidice peninsula), to avoid a dangerous sea region, which had sunk a part of his father's fleet during the first Persian war.[69] The allied Greek forces under the Spartan leader Leonidas were, at first, not able to deny the Persian army entry through the *Thermophiles'* narrow in the north of Greece and had to withdraw to the south, near Corinth. This left Attica undefended and, accordingly, the Persians occupied and destroyed large parts of Attica, Boethia, and Euboae, including Athens. However, the unified Greek navy, to which Themistocles' new-built navy of Athens made the greatest contribution, delivered a crushing defeat over Xerxes at the sea battle of *Salamis* (between Piraeus and Corinth) in 480 BC. A year later, in 479 BC, the Greek, this time by its hoplites land army, won another great victory in the battle at *Plataea*, Aeschylus described the return of the defeated Persian's king Xerxes I. in his "The Persians".

65 *Waterfield* (2018) page 68, 164. Waterfield sees the nominal salaries increasing from one drachma for a day's manual labor, at the end or the 5th century, to 2,5 drachmae at the end of the 4th century BC (page 198).

66 *Ober* (2016) page 148.

67 *Cartledge*, Power and State, in: *Cartledge* (1998) page 179.

68 *Waterfield* (2018) page 147.

69 *Waterfield* (2018) page 148.

Conservatism, prosthetics and Athena's splendor

The following (approximately fifty years) prior to the Peloponnesian War (431 to 404 BC), became the heyday of classical Athens. Athens emerged from the Persian wars as the leading imperial power, mainly because of its trireme navy. But the question was how the Greeks sitting on the shores of Asia, in particular, could be protected against Persian revenge.[70] Athens' answer was the *Delian League*, which Athens founded in 478 BC with up to 1,000 partners;[71] these partners, given that most of them were unable to provide triremes themselves, had to make contribution payments in cash. After some time, membership in the Delian League was no longer voluntary and the payments resembled imperial tributes. When Naxos tried to leave in 467 BC, it was besieged and forced into re-joining.[72] "Free riding" – enjoying protection against the Persians by the Delian League, but not contributing thereto, was not allowed. Athens' imperial position widened its arsenal of prosthetics: First, if Athens conquered new land, including of former allies who had attempted to leave the Delian League (other examples included the Mytilene uproar or the conquest of Melos or Histiaia[73]), it could assign it to Athenian *klerouchoi*, poor citizen, often impoverished former hoplite farmers, who were reinstituted in an economically independent position. They would either move to their newly assigned land, and work it as a free farmer, or lease it back to its original owner.[74] In particular, Athens founded new colonies in Brea in Trakia in the mid-4th century BC.[75] (Similar practices were to become more relevant in ancient Rome.) These measures, based on state violence, generated prosthetic employment-generating spending at almost no cost. Second, huge amounts of contributions or tributes in money or in kind flew into Athens from its Delian League partners. As a further military investment, Themistocles had a wall built around Athens and the Piraeus harbor,[76] securing Athens' supplies, mainly corn, from the Black Sea. Archaeologists believe that fortifications of this kind were extremely expensive at the time and must, hence, have provided huge income opportunities for both firms and laborers who had to break

70 *Burn* (1990) page 195.

71 *Waterfield* (2018) page 174 et seq.

72 *Ober* (2016) page 280, *Waterfield* (2018) page 179.

73 *Günther* (2011) page 142.

74 *Ober* (2016) page 290 et seq., page 303, 306.

75 *Günther* (2011) page 142.

76 *Burn* (1990) page 193, 216. See also *Ober* (2016) page 274. Themistocles even travelled to Sparta to expressly assure the Spartans that Athens did not have the intention to build a wall – while it was secretly built. It is funny that the famous sentence by *Walter Ulbricht* on 15 June 1961 "Niemand hat die Absicht eine Mauer zu bauen" ("nobody has the intention to build a wall!") has, thus, likely been said already 2,400 years before in Sparta… .

the stones, carry them, cut them, and integrate them into the walls.[77] Third, as the Persians had destroyed Athens completely in 479 (and again 480 before Plataea), the city of Athens needed to be re-build. It was on this occasion that Pericles erected the Propylaea and the new Parthenon for the goddess Athena on the Acropolis, the remnants of which we admire today.[78] Thucydides, the politician, not the historian, though, denounced this as misusing the contributions of the Delian allies "decking our city like a vain woman with precious stones and thousand talent temples".[79]

Fourth, another sort of prosthetic employment-generating spending made its debut as imperial Athens became also more democratic. Under the influence of Ephialtes († 461 or 457 BC), and Pericles (490–429 BC), Athens began to make significant compensation payments to its citizens for the exercise of public office (from around 450 BC onwards). The stated purpose was, already then, to enable members of the lower property classes, particularly the *thetes*,[80] to share public responsibilities. Sources report on an astonishingly high number of positions, e.g., of remunerated judges, which can hardly be explained that way. It is said that e.g., two hundred to four hundred jurors decided upon one single private case and five hundred jurors decided upon larger public cases. Altogether, six thousand (!) jurors were reportedly drawn by lottery each year.[81] *Clauss* estimates the number of judges who were assigned to deciding a single case at between 200 to even 3,000 jurors, mostly likely 500, and believes that the number had been so enormous as to avoid bribery and deals.[82] Yet, he may have overlooked the more trivial effect: The state was mass-financing its poor citizenship.

The pay per day was certainly not just symbolic. Initially, around 450 BC, jurors received two obols or a third of a drachma per day; as from 426–425 BC, three obols or half a drachma was paid which was just enough, according to Waterfield, to supply a small family with its barley.[83] *Aristophanes* derided this practice as a means by which to re-distribute 10 % of the contributions or tributes from the Delian League's

77 *Ober* (2016)) page 77.

78 *Burn* (1990) page 221 presents "the public building program beginning with the great temple …on the summit of the Acropolis" as a means to alleviate the situation of those, "who had never known a time when they could not earn a summer's income by rowing the triremes."

79 *Burn* (1990) page 229.

80 Solon's other property classes were the *pentakosiomedimnoi*, who had over 500 "bushels", the *hippies*, who served as cavalry, like the Roman equites, who had 300 "bushels", and the *zeugitai*, who had 200 "bushels". Yet, the *thetes* would be the core social basis of Athens imperial democracy in the fifth century as it had been organized by Ephialtes and Pericles (See *Cartledge*, Historical Outline c. 1500 – 146 BCE, in *Cartledge* (1998) page 65, and *Waterfield* (2018) page 80).

81 *Günther* (2011) page 182. *Thommen* (2019) page 123 gives slightly different numbers.

82 *Clauss* (1993) page 84.

83 *Günther* (2011) page 184; *Waterfield* (2018) page 209, 210.

allies, or of 2,000 talents, to the lower classes. Modern research stresses that not all 6,000 elected jurors served every day, but still they served an astonishing 150 days per annum (!), which would have led to a redistribution of 75 talents. The scope of public offices, for which remunerations were paid, was not limited to jurors. After 399 BC, even attendance of the *ekklesia*, the people's general assembly, was paid; the normal pay was 1 drachma for being there for a half day, attending exceptional meetings paid 11/2 drachmae. [84]

Now, where did the finance for all of these public investments and transfer payments come from? There were, indeed, already certain taxes in Athens, e.g., Peisistratus' aforementioned 10 %-tax on land or the poll-tax (*isoteleia*). Moreover, like hoplites had always financed their spears, sword, armor, and helmet and *hippeis* themselves, it was common for the wealthier Athenians to make occasional one-time contributions (*eisphora*) to the public. E.g., wealthy citizen who were desirous to stage honorable celebrations, such as the Panathenaea and Dionysus festival, had to pay a price for this.[85] Additionally, wealthy citizens would fund the construction of sanctuaries and monuments. When the navy was set up, this practice was extended to the financing of individual triremes, including the pay for the crew for some time.[86] State debt, on the other hand, does not appear to have been an important factor, although sometimes temples, e.g., the temple of Delphi, gave out loans more or less voluntarily.[87] Furthermore, Athens of the classical period continued to enjoy the same protection of goddess Athena that the Greeks had already enjoyed before Troy. When the Persian threat was greatest, in 483 BC, a new and extra-rich silver vein in the Athenian silver mines at Larium in south-east Attica[88] was fortunately discovered. Themistocles, then, convinced the *ekklesia* on the *pnyx* not to distribute the silver amongst the citizens – allegedly two and a half tons of silver was available[89] –, but to use it to finance the build-up of the fleet instead.[90] The new silver vein continued to contribute to Athens' public finances far beyond the Persian wars; it appears to have only been exhausted approx. around 100 BC.[91] This was sheer luck.

84 *Günther* (2011) page 185.

85 Most of the sacrificed animals' meat was eaten by humans. As *Waterfield* (2018) page 10, put it: "The gods usually received a smoke and smell, the bones and other inedible bits, but the rest was consumed by the humans…".

86 *Ober* (2016) page 345.

87 *Nack/Wägner* (1975) page 97 call the temple of Delphi "the central bank of all Greece". See also *Ober* (2016) page 339. Buddhist temples in China or monasteries and temples in Persia, Israel, Byzantium, elsewhere in Europe, or even in Japan would later do much the same (*Mandel* (2007) page 220)

88 *Burn* (1990) page 166.

89 *Waterfield* (2018) page 147.

90 *Burn* (1990) page 166.

91 *Waterfield* (2018) page 66 et seq.

In a commodity money regime, gold or silver mines are the best money creation glands. Finally, of course, as already mentioned, Athens' imperial goods procurement by violence contributed a great share to prosthetics financing, i.e., after 479, through contributions of the Delian League's members.

Spartans

Sparta, the second most-important Greek polis dealt with the ancient master drama through a blend of structural conservatism and progressive prosthetics. The Spartans had subjugated the population of neighboring Messenia in a particular form of state slaves, called *helots*. This subjugation, at the hands of the free Spartans, became the central axis of Spartan politics. The difference in rank between the helots and Spartan citizens was emphasized and culturally elaborated on many occasions. Strangely enough, the Spartans *formally declared war on their helots every year.* Worse still, young Spartans were expected to prove their courage by discretionarily attacking, injuring, and even killing helots in some kind of weird initiation rite following the completion of their state education.[92] Just as the distinction with helots was greatly emphasized, so were the distinctions in wealth, which, of course, existed between free Spartans de-emphasized and different measures were taken to hamper a further increase of inequality, e.g. by inheritance laws and through the prohibition of that which might dynamize the economy. In roughly that sense, *Hegel* wrote, "… the constitution of Lacedæmon is … worthy of high esteem for it regulated and restrained the high Doric spirit, and its principal feature was that all personal peculiarity was subordinated, or rather sacrificed, to the general aim of the life of the State, and the individual had the consciousness of his honour and sufficiency only in the consciousness of working for the State. A people of such genuine unity, in whom the will of the individual had, properly speaking, quite disappeared, were united by an indestructible bond, and Lacedæmon was hence placed at the head of Greece, and obtained the leadership… This is a great principle which must exist in every true State, but which with the Lacedæmonians retained its one-sided character … This abrogation of the rights of subjectivity, which, expressed in his own way, is also found in Plato's Republic, was carried very far with the Lacedæmonians." Hegel particularly stresses the interference in property relations to the aim of equality: "…it likewise ends in a harsh aristocracy, just as the fixed equilibrium of property (each family retaining its inheritance, and through forbidding the possession of money, or trade and commerce, preventing the possibility of inequality in riches) …". While Hegel sees and understands the purposes behind these motives, Sparta did not stand exactly where he would have liked the world spirit to march. Ultimately, he observed that Sparta "passes into an avarice which, as opposed to

92 *Waterfield* (2018) page 62, 108. The issue is not undisputed amongst historians.

this universal [spirit of the Athenians], is brutal and mean".[93] Sparta, thus partly, dealt with its social master drama in a more conservative way than Athens. M–C–M' and the expropriation of free peasants was impeded, in the first place, by rigid social practices based on an egalitarian military *esprit de corps* – as if Solon had given up his moderation and taken over a perpetual Jacobin rule or as if the Roman Gracchi brothers had erected a slaveholder society, in which socialism ruled between the slaveholders. That certainly helped to maintain the fighting power of Spartan hoplites and reduced the need for prosthetics.

Hence, we find that when the master drama of antiquity raised its head in the 6th and 5th centuries in Greece there were, altogether, two different strategies to save the all-important armies from it. First, peremptory attempts were made by Solon, Peisistratus and others in Athens, to conservatively support small farmers to continue to survive as such. In Athens these conservative-restorative efforts ultimately capitulated in front of the economic dynamics, while in Sparta's militaristic society they were largely successful preserving the hoplite-farmer-army. In Athens, yet, a workable solution was discovered in a gigantic prosthetic employment-generating spending for the preparation and execution of two major wars, the reconstruction of Athens after the Persian wars, the further build-up of Athens as the Delian League's imperial center, and the continued military spending required to maintain Athens' hegemony. There was, in other words, already a lot of "big government" in the small polis of Athens, which handled the ancient master drama. The money needed in Athens was procured by tributes, plundering or requisitions, as well as by contributions and taxes of free Athenians at home, or the lucky discovery of a silver streak, a rare occurrence of just-in-time mass money creation in a system of commodity money.[94] In short, while massive expropriations of small farmers by M–C–M' was ultimately not avoided in Athens, taxation and expropriation, goods procurement by violence, and money creation, allowed to deal with the disintegrating effects of the ancient profit economy. We shall see that these forms of prosthetic employment-generating spending, and the ways of funding them, became the forerunners of prosthetic practices in Rome and in our times.

93 *Hegel*, Lectures on the History of Philosophy, volume One. The quotations are taken from the introduction to Anaxagoras.

94 The death of a great number of Athenians through the wars and outbreaks of diseases that took place from 430 to 425 may have helped to avoid an excess population.