

# Zeugitai and Hoplites: a Military Dimension of the Solon's Property Classes Revisited\*

Taisuke Okada

## Introduction

Traditionally, historical research has emphasized the critical ways in which warfare influenced the social organization of the Greek poleis. In addition, a long-held belief widely shared by both ancient and modern authors is that there was a strong link between socio-economic class and the various types of military service (e.g., cavalry, hoplites, light-armed troops and naval crews) and that each class enjoyed political privilege in proportion to the type of military service that it performed. It is Aristotle who most clearly elaborates this notion in *Politics*, where he sketches the development of the *politeia* in Greece through changes in the mode of warfare. The first *politeia* consisted of horsemen due to the superiority of cavalry in warfare. As the hoplites became stronger, more men were admitted to the *politeia*.

Presumably introduced (or formally defined) by Solon in 594/3, the property classes have been considered one of the fundamentals for the notion that the *politeia* corresponded to the predominant mode of warfare. Although none of the principal sources (i.e., Arist. [*Ath. Pol.*] 7.1-4, Plut. *Sol.* 18.1-2, Arist. *Pol.* 1274a19-21 and Poll. *Onom.* 8.129-32) except for the fake constitution attributed to Draco (Arist. [*Ath. Pol.*] 4.2-3) associates the property classes with any military service, there has been a long-standing and strong scholarly tradition that presumes a connection between them.<sup>1</sup> Despite such conviction, several scholars have been skeptical about this theory.<sup>2</sup> To review more closely the sources cited and the preceding arguments

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<sup>1</sup> Andrewes (1956), 87; id. (1982), 383; Jeffery (1976), 93; Chambers (1990), 170; Singor (2000); Guia-Gallego (2010); Crowley (2012), 23-25; de Ste Croix (2004), 19-28. Hansen ((1981), 23-29; (1986), 85, 89) supposes that the hoplites in the fifth century (the metics apart) normally consisted of the citizens of military age belonging to the top three property classes, while accepting that the thetes could be mobilized if necessary. Van Wees (2001; 2002; 2006) (with some nuances) basically supports the connection between the property classes with military service, while maintaining that the thetes were exempted from serving as hoplites. Pritchard (2010), 23-27 connects the thetes with the navy, while refusing to associate the property classes with military service (1994; 1998).

<sup>2</sup> Kahrstedt (1934), 252-54; McDowell (1978), 160; Bugh (1988), 32-34; Spence (1993), 180-82; Stanley (1999), 206-08; Rosivach (2002a); Gabrielsen (2002b). Hansen (1991), 44-46, though not

regarding a connection between property classes and military service, this paper considers the *zeugitai*, which have often been linked with military service as hoplites.

### Etymology

It has been traditionally assumed that the *zeugitai* were a military class that had already existed before Solon's reforms. This assumption is almost entirely based on an etymological interpretation of the *zeugitai* as 'soldiers in the same rank'.<sup>3</sup> Supporters of this 'military etymology' have suggested that the word *zeugitai* described men who formed any rank within a hoplite *phalanx*. The sole example of the term *zeugitai* used in a military context in the extant sources is in Plut. *Pel.* 23.4 and concerns the Spartan soldiers. The word *zeugitai* in this context seems to be derived from the term *zygon*, whose unique example in the Classical period (Thuc. 5.68.3) means the first rank of the Spartan hoplites' cohort, *enomotia*.

Rosivach ((2002a), 37-38; (2012), 147) plausibly argues that since the mentions of *zeugitai* and *zygon* in a military sense in the Classical period seem to be limited to the Spartan army, the use of *zeugitai* and *zygon* to describe elements of the hoplite *phalanx* is originally Spartan. Besides, later references to *zygon* and *zygos* suggest that they have become technical terms signifying the line of the hoplites as opposed to the row in the Macedonian armies of Hellenistic times. Likewise, the *zeugitai* in the Plut. *Pel.* 23.4 signify soldiers in the same rank opposed to those in the rear rank (*epistatai*). No parallel use of the term *zeugitai* has been attributed to any sources from the Classical period. Van Wees (2006), 353-54 et 354 n.17 supposes that the usage of the term *zeugitai* in Plut. *Pel.* 23.4 reflects later terminology. Anyway, it seems clear that the Athenians in the Archaic period never used the terms *zeugitai* and *zygon* in a military sense.<sup>4</sup>

Some scholars have supported an alternative etymological interpretation of *zeugitai* as men who owned a yoke of oxen.<sup>5</sup> Poll. *Onom.* 8.132 provides the sole literary reference that may support this 'agricultural etymology'. In this passage, Pollux, providing quantitative qualifications of the property classes a few lines earlier, notes that those who kept a pair of oxen (*zeugotrophountes*) paid the

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necessarily in a clear manner, seems to reject the connection of the property classes with military service.

<sup>3</sup> Andrewes (1956), 87; Jeffery (1976), 93 et 107 n.6; Whitehead (1981); Chambers (1990), 170; Rhodes (1993), 138, id. (2015), 129; van Wees (2001), 61; de Ste. Croix (2004), 49-50; Hornblower (2008), 182. For the history of the 'military etymology', see Rosivach (2002a), 36-37.

<sup>4</sup> Hansen (1991), 44 and Stanley (1999), 207-08 deny the 'military etymology' of *zeugitai* theory mainly because the names of the other property classes do not have any military connotation.

<sup>5</sup> Hansen (1991), 44; Stanley (1999), 207-08.

*zeugēision* tax. Van Wees (2006), 352-53 assumes that since Pollux (or his source) identifies the zeugitai with the *zeugotrophountes*, the zeugitai were farmers who were wealthy enough to own a pair of oxen. Guia-Gallego (2010), 261, 265-67 then links the ‘agricultural etymology’ of zeugitai with military service, suggesting that the term refers to those farmers who were sufficiently well-off to serve as hoplites. Supporting this notion is the widely accepted assumption that the smallest area economically feasible to work with a yoke of oxen is approximately 5 ha, which virtually coincides with the supposed size of a minimum hoplite land allotment (3.6-5.4 ha).<sup>6</sup>

However, Whitehead (1981), 284-85 and Rosivach (2002a), 40-41 point out that since the *zeugotrophountes* appear two sections later in the relevant passage where the immediately preceding context concerns taxation and not property classes, they cannot be the same as the zeugitai. Whitehead supposes that the *zeugotrophountes* in this passage refers to the trainers (or suppliers or users) of yoked beasts. In that case, the sole literary evidence for the ‘agricultural etymology’ of zeugitai has almost no merit whatsoever.

Clearly, it is not possible to arrive at any definite conclusion regarding the nature or status of the zeugitai on the etymological grounds.

### **Thuc. 6.43, 8.24.2**

Apart from the arguments surrounding the dubious etymological interpretation of the term zeugitai, scholars point to two notices in Thucydides to support the notion that the zeugitai were connected with the hoplites. The most significant of the two is the account concerning the manning of ships for the Sicilian expedition in 415. Thucydides (6.43) reports that the Athenian hoplites who embarked on the 100 Athenian ships consisted of "1,500 men from the register (*ek katalogou*) and 700 thetes who served as *epibatai* (marines).<sup>7</sup> In the other account, Thucydides (8.24.2) says that Leon and Diomedon, who were heading for Lesbos in 412, had under their command hoplites *ek katalogou* serving as *epibatai* out of compulsion.

From these accounts it has often been deduced that since the thetic *epibatai* apparently stand in contrast to the hoplites enrolled *ek katalogou*, the *epibatai* were

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<sup>6</sup> Burford-Cooper (1977/78), 169; Burford (1993), 67; Hodkinson (1988), 39; van Wees (2006), 355-58. Gabrielsen (2002b), 214 is skeptical about associating the archaeologically identified ‘standard’ landholdings with the ‘hoplite farm’.

<sup>7</sup> This is the only mention of thetes in Thucydides. Rosivach (2002b), 41 n.21 regards the referent not as a property class, but rather poor working folk. I prefer de Ste. Croix’s perspective ((2004), 20-21) that thetes refers to a property class, as Rosivach’s argument needs to be examined.

normally recruited from the volunteer thetes, while the hoplites conscripted *ek katalogou* were obliged to serve on board only in exceptional circumstances.<sup>8</sup> In other words, since the hoplites *ek katalogou* did not serve on board but the thetes did, the hoplites *ek katalogou* were not thetes. This may then suggest that the regular hoplites *ek katalogou* were enrolled from the higher property classes than the thetes, especially the zeugitai. Indeed, these passages are practically the sole evidence from the Classical period that may suggest that the zeugitai roughly represented the hoplites *ek katalogou*.<sup>9</sup> Van Wees ((2001), 46, 59-61; (2002), 67-69 et 67 n.23; (2006), 371-76) taking a step forward argues that whenever the thetes fought as hoplites, they did so as volunteers.

Yet, the argument that the *epibatai* exclusively consisted of thetes is not compatible with ample evidence attesting that people of higher social standing served on board.<sup>10</sup> And, if the exclusively thetic *epibatai* in the Sicilian expedition of 415 was an exception, there may be no grounds for excluding the thetes from the hoplites *ek katalogou*.<sup>11</sup>

Plenty of evidence suggests the higher status of the *epibatai*. On the eve of the battle of Salamis, Themistocles called up and addressed the *epibatai* (Hdt. 8.83). During the expedition to Aetolia in 426, 120 of 300 *epibatai* under Demosthenes' command perished in battle. Thucydides (3.98.4; cf. 95.2) describes the dead soldiers as 'all in the flower of their youth; they were the very finest men [*beltistoi*] whom the city of Athens lost during the war',<sup>12</sup> and the *epibatai* poured out libations with the trierarchs at the ceremonial departure of the Sicilian expedition (Thuc. 6.32.1).<sup>13</sup> In addition, Andocides, an elite citizen, was accused in 399 of shrinking from serving either as horseman, as hoplite, as trierarch or as *epibates* (Lys. 6.46).<sup>14</sup> The image of an 'elite *epibatai*' is also supported by epigraphical and pictorial evidence. In *IG I<sup>3</sup> 1032* (late fifth century), which recorded lists of eight triremes'

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<sup>8</sup> Busolt-Swoboda (1920-1926), 575 n.1, 1206; Koerte (1932), 1030; Laing (1960), 137 n.23; Gomme (1970), 310 (Dover); id. (1981), 56 (Andrewes); de Ste. Croix (2004), 21; van Wees (2001), 59; (2004), 210, 308 n.40; id. (2006), 371; Hornblower (2008), 815-16.

<sup>9</sup> de Ste Croix (2004), 21; Guia-Gallego (2010), 258-59.

<sup>10</sup> Jordan (1975), 195-203; Pritchard (2010), 24 n.139.

<sup>11</sup> Gabrielsen (2002a), 87, 92; (2002b), 205-06.

<sup>12</sup> Gabrielsen (2002b), 211. Gomme (1956), 407-08 sticks to the accepted theory, while Andrewes (Gomme (1981), 56) is more reserved. Hornblower (1991), 514 is puzzled and Morrison (2000), 110 suggests that they were a physically fit elite force.

<sup>13</sup> Jordan (1975), 197; Morrison (2000), 110. Gomme (1970), 296 takes them as 'representatives of the troop on board' since it is improbable that the thetes poured libations.

<sup>14</sup> Andrewes (Gomme (1981), 56) rightly suggests that there may have been a conception that Andocides could have served as either hoplite or *epibates*.

crews, the *epibatai* are always listed right after the trierarchs, which indicates that they had the highest status on the ships after the trierarchs. Moreover, each of the *epibatai* is most probably accompanied by at least one personal attendant, and some of their names seem to reflect a higher social status.<sup>15</sup> The gravestone of Democleides, son of Demetrius, who died around 400, pictures a man sitting at the prow end of a ship deck. A shield and a Corinthian helmet behind him indicate that he was *epibates*. The quality of the stele testifies to the wealth of his family.<sup>16</sup>

The *epibatai* of states other than Athens also indicate their higher social standing. The Chian *epibatai*—who fought bravely in the battle of Lade in 494—were referred to as ‘selected men [*andres logades*]’ (Hdt. 6.15). Thucydides (1.55.1) reports that most of the Corcyraean citizens captured in the battle of Sybota in 433 were ‘the first men [*prōtoi*]’, who could not have been rowers and most probably were *epibatai*. Hermocrates, a Syracusan *strategos*, consulted with his *epibatai*, as well as his trierarchs and *kybernetai*, before making decisions in 410/9 (Xen. *Hell.* 1.1.28).<sup>17</sup> Finally, Aristotle says that ‘the naval mob [*nautikos ochlos*]’ does not have to belong to the polis because it is *epibatikon*—‘free men who belong to the army’—who are in command on board the ship (Arist. *Pol.* 1327b6-10).

In light of the overwhelming evidence that suggests *epibatai* were in fact higher status soldiers, let’s return to Thuc. 6.43 and 8.24.2. The argument that the *epibatai* were exclusively recruited from the thetes is not tenable. It is most probable that not only the thetes but also citizens from the other property classes served as *epibatai*. The exclusive recruitment of the 700 thetes as *epibatai* in 415 must, therefore, have been exceptional, which may explain Thucydides’ specific mention of them. What Thucydides contrasts here must be conscripts *ek katalogou* and volunteers from the thetes. In other words, Thucydides is drawing a distinction between different modes of recruitment rather than between the thetes and the other property classes.<sup>18</sup> That the Athenians recruited the *epibatai* on a voluntary basis, is also supported by the inscription *IG I<sup>3</sup> 60* (c.430) recording the dispatch of an Athenian fleet. Here, each trireme is to be manned with five volunteer (*ethelontes*) *epibatai* (ll.10, 15-16). There is no mention of the property classes.<sup>19</sup> As for Thuc. 8.24.2, what was

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<sup>15</sup> Hippodamas (*IG I<sup>3</sup> 1032* l.284) was one of the *epibatai* and was supposed to be grandson of a homonym who was a *strategos* in 459 (Laing (1965), 77-78; Osborne-Byrne (1994), 237). Laing (1965), 137 et n.23 regards this case as exceptional; we do not agree (Okada (2015), 17-18).

<sup>16</sup> Jordan (1975), 198; Strauss (2000), 262-264; Okada (2015), 20.

<sup>17</sup> Krentz (1989), 103.

<sup>18</sup> Pritchard (2010), 24-25.

<sup>19</sup> Jordan (1975), 201-03; Gabrielsen (2002a), 92.

exceptional is that the *epibatai*, who were usually volunteers, were conscripted in 412.

To conclude, Thuc.6.43 and 8.24.2 support neither of the arguments that the thetes did not take part in the hoplites *ek katalogou* nor that they were exempted from service as hoplites and served only as volunteers.<sup>20</sup> This conclusion leads to the next question of whether the thetes were actually enrolled in the hoplite *katalogos*.

### **Hoplite *katalogos***

Despite the traditional view that assumed one central register (*katalogos*) in which those who were eligible to serve as hoplites enrolled,<sup>21</sup> it is now generally accepted that there were two different procedures to call up the hoplites. From around the mid-fifth century to the mid-fourth century, the *strategoï* selected from each tribe specified numbers of soldiers for particular campaigns and published a register (i.e., a *katalogos*) of those selected. This *katalogos* was not based on any central register of the hoplites, but rather on the deme registers (*lēxiarchika grammateia*). It was the soldiers enrolled in this way who were called ‘[hoi] *ek katalogou*’. On the other hand, until the mid-fourth century at the latest, the Athenians replaced the old system with a new call-up system based exclusively on age group.<sup>22</sup>

It has been widely assumed that the thetes were excluded from the hoplite *katalogos* and that they normally did not serve as hoplites.<sup>23</sup> Van Wees insists that the thetes who were not registered in the *katalogos* usually served on a voluntary basis, while the higher classes who were registered were under obligation to serve. We have seen that Thuc. 6.43 and 8.24.2 cannot be used as evidence for this

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<sup>20</sup> Thucydides (3.16.3) reports that in 428 the Athenians manned 100 ships with citizens and metics except *hippeis* and *pentakosiomedimnoi*, which implies that those citizens who embarked were *zeugitai* and thetes. Whether the *zeugitai* served as *epibatai* is not known. We hold that what Thucydides thinks exceptional is not that the *zeugitai* embarked, but, as he himself emphasizes, that the Athenians exempted the top two property classes from serving on board. The exemption may be explained by the need to retain the cavalry force to defend the territory (Gomme (1959), 271; Gabrielsen (2002b), 206). This explanation seems to be supported by a passage of Xenophon (*Hell.* 1.6.24) which remarks that many of the *hippeis* also embarked in 406 when the Athenians manned 110 triremes with all military-aged citizens. These *hippeis* were most probably not a property class, but the cavalry force. Kahrstedt (1934), 253; Krentz (1989), 152. Gabrielsen reserves judgement.

<sup>21</sup> Jones (1957), 163; Gomme (1970), 264 (Dover).

<sup>22</sup> Clerc (1893), 52-53; Hansen (1981), 24-29; Hamel (1998), 24-25 et n.67; Christ (2001); Crowley (2012), 28.

<sup>23</sup> Clerc (1893), 52; Ridley (1979), 519; Hansen (1981), 26, 28-29; id. (1985), 88; Hanson (1996), 292; de Ste. Croix (2004), 21; Guia-Gallego (2010), 258-60.

viewpoint. In this section, we will examine the other sources that are usually cited to support this viewpoint.

The principal sources to turn to are Arist. *Pol.* 1303a1-10 and Arist. [*Ath. Pol.*] 26.1. Aristotle reports in the former passage that ‘at Athens when they suffered disasters by land the notables [*gnōrimoi*] became fewer because at the time of the war against Sparta the army was drawn *ek katalogou*’. In the latter passage, probably referring to the period after the Ephialtes’ reforms, Aristotle mentions that ‘the respectable members [*epieikeis*] both of the people [*dēmos*] and of the wealthy [*euporoi*]’ sustained heavy losses during that time since the army was raised *ek katalogou* and was commanded by inexperienced *strategoï*. In the latter passage, Aristotle mentions that casualties of the respectable members (*epieikeis*) were numerous not only among the wealthy (*euporoi*), but also among the populace (*dēmos*), both of whom had been enrolled *ek katalogou*.

Some scholars deduce from these two passages that the Athenians at that time mobilized only the upper and middle classes as hoplites *ek katalogou*, excluding poorer citizens; i.e., the thetes were neither registered in the *katalogos* nor served as hoplites.<sup>24</sup> However, it must be pointed out that in *Athenaion Politeia*, Aristotle suggests that not only the wealthy, but also the general populace was enrolled in the *katalogos*. The *epieikeis* are not used here politically, but rather in a moral sense, i.e., the selected elite soldiers.<sup>25</sup> Besides, in *Politica* Aristotle says that the notables suffered heavy losses, but he does not say that there were casualties mostly among the notables (compared to the general populace). This view may be supported by an account of Isocrates (8.88), in which the Athenian noble families were wiped out during the time of the Empire. It is evident from the context that Aristotle meant that since so many people perished, more than a few notables also fell.<sup>26</sup> Furthermore, since it is actually not conceivable that the casualties in the wars in the fifth-century occurred only or mainly among the upper classes, the account of *Politica* may be ideologically biased.<sup>27</sup>

Other sources often cited are two fragments of the late fifth-century writers, Aristophanes’ *Daitaleis* (F248 Kassel-Austin = F232 Kock) and Antiphon’s *Against*

<sup>24</sup> Andrewes (1981), 2-3; Hansen (1981), 28-29; id. (1985), 88-89; Hamel (1998), 25 n.70; Christ (2001), 399; van Wees (2001), 46-47 et 65 n.10. Hansen ((1981), 28; (1985), 88) and Rhodes (1993), 327 suggest that both passages reflect a contrast between the selective enrollment *ek katalogou* and the non-selective call-up system based on age groups.

<sup>25</sup> Chambers (1990), 262; Rhodes (1993), 328; Gabrielsen (2002b), 206-07; Hamel (1998), 25 n.70.

<sup>26</sup> Chambers (1990), 263 supposes that a source of Arist. [*Ath. Pol.*] 26.1 is Androtion, a pupil of Isocrates.

<sup>27</sup> Gabrielsen (2002b), 206-07.

*Philinus* (F61 Thalheim), cited by Harpocration (Harp. s.v. *thētes*, *thētikon*). Harpocration states that ‘Aristophanes in the “*Daitaleis*” says that they [i.e., the thetes] did not serve in the army [*ouk estrateuonto*]’. Antiphon says ‘to make all the thetes hoplites’. It has been assumed that these sources attest that thetes did not serve as hoplites.<sup>28</sup> However, first, it is not clear if Aristophanes actually meant that the thetes did not serve as hoplites, since the extant text does not preserve Aristophanes’ actual words. Van Wees ((2001), 60-61; (2002), 67-68 n.23) maintains that Harpocration misinterprets a comic reference to the fact that thetes were not obliged to serve. Second, as Rosivach (2002a), 33 n.5 remarks, the Aristophanes’ account may be nothing more than a joke. Third, Antiphon may well mean that not all thetes performed military service; i.e., that some thetes did serve.<sup>29</sup> Finally, we should keep in mind that the two sources being isolated fragments and completely lack context, may be too dubious to cite as hard evidence to support any argument.<sup>30</sup>

Referring to the Athenian casualties of the plague in 430/26, Thucydides (3.87.3) reports that ‘no fewer than 4,400 of the Athenian hoplites from the ranks died, no fewer than 300 of the cavalry also died; the number of casualties of the other mob [*ho allos ochlos*] could not be found’. Many scholars have assumed that while Thucydides had precise information about the hoplites and cavalry (i.e., the higher property classes), he could not know the number of ‘the other mob’ (i.e., the thetes) because the latter were not registered in the *katalogos*.<sup>31</sup> Yet, in this passage, Thucydides does not discuss or even mention the property classes. He is certainly recounting the losses of the two branches of the army, and his use of ‘the other mob’ may refer to nothing more than the population other than the soldiers in active service.<sup>32</sup>

Van Wees arguing that the thetes did serve but only on a voluntary basis because they were basically exempted from military service as hoplites, adduces Arist. *Pol.* 1297a29-39. In this account, Aristotle urges that military service and political privileges be confined to the wealthy, while not excluding the less well-off from the army. He supports his argument by citing the example of the oligarchic state: in this context, while the rich are liable to arm themselves, the poor are

<sup>28</sup> Ridley (1979), 519; Hansen (1991), 45-46; de Ste. Croix (2004), 13; Guia-Gallego (2010), 258.

<sup>29</sup> van Wees (2001), 71 n.72. Hanson (1996), 306 takes this text in a political rather than a military sense of granting all citizens equal access to office-holding.

<sup>30</sup> Rosivach (2002a), 34 n.13 regards the thetes in these two texts not as a property class, but as a ‘rural underclass’. Pritchard (2010), 24 is skeptical.

<sup>31</sup> Hansen (1991), 116; Hornblower (1991), 494-95; Brûlé (1999), 64-65; de Ste. Croix (2004), 19.

<sup>32</sup> Gomme (1956), 388 regards ‘the other mob’ as metics, foreigners, women, children and slaves.

allowed not to but still retain the right to own arms. Yet, as Rosivach (2002a), 35-36 points out, Aristotle's argument is only theoretical and cannot be applied specifically to Archaic and Classical Athens without additional supporting evidence, which has not been obtained.

The *katalogos* is thought to have been compiled *ad hoc* from the deme registers (*lēxiarchika grammateia*). Some scholars have thought that the thetes were not enrolled in the deme registers. One of the few sources usually cited to support this argument is a lexicographical explanation of these registers as referring to the citizens who possessed a *lēxis* or *klēros* (i.e., inherited property; Poll. *Onom.* 8.104; Harp. s.v. *lēxiarchikon grammateion*).<sup>33</sup> Yet, Jameson (1963), 399-400 and van Effenterre (1976), 11-14 rightly indicate that the alternate interpretation of the term *lēxis* as an allotment is preferable because the other interpretation cannot explain the formation of a *lēxiarchikos* requiring a *lēxiarchos*, which was most probably an official in charge of allotment.<sup>34</sup> Moreover, the thetes may not necessarily have been the landless proletariat.

Apart from Themistocles' Decree (*SEG* 22.274; *ML*.23), the authenticity of which is debatable, the first indisputable mention of the deme registers occurs in *IG* I<sup>3</sup> 138 and is dated by Jameson (1980), 44 to the 440s or early 430s. This is a decree that ordained the levying of contributions from horsemen and hoplites as well as archers, including both citizens and foreigners. The demarchs were to collect contributions from those enrolled in the deme registers and the toxarchs from the archers. Some scholars deduce from this decree that the demarchs were to levy contributions from the horsemen and the hoplites since both of them were enrolled in the deme registers, while the toxarchs were to levy them from the archers since the citizen archers (i.e., the thetes) were not enrolled.<sup>35</sup>

Other scholars believe that the levying contributions from the archers by the toxarchs does not indicate that the thetic citizens were not found in the deme registers. Jameson ((1963), 400; (2014), 50) and Meritt (1967), 124 plausibly argue that the citizen archers were among those enrolled in the deme registers and that the toxarchs levied only from the foreign archers. Scholars also maintain that the deme registers must have been created during the reforms of Cleisthenes in 508/7 and that

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<sup>33</sup> Busolt-Swoboda (1920-1926), 966 n.1; Habicht (1961), 5-6 et 5 n.5, 6 n.3; Vidal-Naquet (1968), 164-65.

<sup>34</sup> Frost (1984), 284.

<sup>35</sup> Habicht (1961), 5-6; Vidal-Naquet (1968), 164-165; Jordan (1975), 206-208; van Effenterre (1976), 8-9 et 9 n.30; Johansson (2001), 84. As for the possible use of the deme registers in conscription, see Frost (1984), 284; Christ (2001), 401; Bakewell (2007), 90-91 et 90 n.10.

every Athenian, no matter what his class, belonged to a deme.<sup>36</sup> After all, the decree nowhere mentions any of the property classes, but only the military divisions. Besides, there is no evidence to suggest that the citizen archers consisted exclusively of the thetes.

None of the sources cited to show that the thetes were not enrolled in the *katalogos* (i.e., they did not serve as hoplites unlike the higher property classes) is sufficient evidence. Therefore, the thetes may have served as hoplites, not only as volunteers, but also as conscripts. Indeed, accounts from the fourth century suggest that the thetes were actually enrolled in the *katalogos*. A speech delivered in 354/3 ([Dem.] 13.4) discusses military pay to those who are too old for the *katalogos*. Hansen ((1981), 27; (1986), 89) and Gabrielsen ((2002a), 94; (2002b), 207) maintain that Demosthenes' arguments may not make any sense unless the *katalogos* included the thetic citizens. Another speech delivered in 362/1 ([Dem.] 50.6-7, 16) refers to a decree to dispatch a fleet that was to be manned with crew from the *katalogoi*. As early as the fifth century, the Athenians sometimes mobilized naval personnel from the *katalogos* (Thuc. 7.16.1. cf. 7.20.2).<sup>37</sup>

In sum, if the thetes were neither *de jure* nor *de facto* excluded from the hoplites, there may be no reason to connect particularly military service as hoplites to the class of zeugitai. Now, it is necessary to discuss the zeugitai's property qualification, which, if correctly reported by Aristotle and other sources, may support our argument.

### **Property qualification of the zeugitai**

The sources report that the citizens classed as zeugitai had annual produce between 200 and 300 measures. Many scholars have attempted to calculate equivalencies in land for the property classes. Starr (1977), 154 et 244 n.23 suggests, for example, on the assumption that all the product is grains, that a zeugitai's farm must be at least 12 ha (including fallow).<sup>38</sup> According to Foxhall's calculation (1997), 129-130, which is based on the same assumption as that of Starr but uses better information, for a zeugitai's farm to produce 200 measures of wheat, it must be a minimum of 8 to 13 ha; if it produces barley, the minimum is 7 to 11 ha. Using a sophisticated calculation, van Wees ((2001), 47-51; (2006), 361) suggests that a

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<sup>36</sup> Meritt (1967), 124; van Effenterre (1976), 11; Jameson (2014), 50 n.25; Whitehead (1986), 35-36 n.130; Sickinger (1999), 55.

<sup>37</sup> van Wees (2002), 67-68 n.23.

<sup>38</sup> Hignett (1953), 100-01 supposes that the zeugitai need not have possessed more than 43 acres (17.4 ha).

farm producing 200 measures is an average size of 8.7 to 13 ha. In Classical Athens, at an average size of 10.85 ha, a zeugitai's farm is supposed to have been worth 6,000 drachmas, or 1 talent. Based on these calculations, though varied, most scholars have agreed that the zeugitai may not have been mere subsistent farmers, but rather were fairly wealthy landowners, as the sizes of their farms were two or three times as large as the average farms of 3.6 to 5.5 ha, which have generally been thought to be enough for feeding a family and performing military service as a hoplite.<sup>39</sup>

Scholars have suspected that the property qualification of the zeugitai (between 200 to 300 measures) is, if they are hoplites, too high. First, the product of 200 to 300 measures is too large compared to that of 300 to 500 measures of the hippeis, if the latter are those who have substantial financial resources to afford horses.<sup>40</sup> A war horse costed an average of 500 drachmas in the fourth century, which was equivalent to about fifteen months' wages. Plus, feeding a horse was similarly expensive.<sup>41</sup> On the other hand, in the Classical period a minimum cost of hoplite equipment was no more than 25 to 30 drachmas, about a month's wages.<sup>42</sup> The property qualification of the zeugitai then must have been more obviously different from that of the hippeis. Also, if all or the majority of the hoplites were zeugitai, the arable area of Attica, which has been calculated at between 65,000 and 96,000 ha, is not enough to accommodate so many hoplites—the 13,000 active hoplites in 431<sup>43</sup> needed 113,100 to 169,000 ha; the 8,000 to 9,000 hoplites whom the Athenians fielded in the Persian Wars, needed 69,600 to 104,000 ha at a minimum.<sup>44</sup> De Ste. Croix (2004.47-48) assumes that there were 3,000 to 5,000 hoplites in Solon's time who needed a minimum of 26,100 to 39,000 ha.

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<sup>39</sup> Foxhall (1997), 131; Raaflaub (1999), 150-51 n.49; van Wees (2001), 51; id. (2006), 361; Rosivach (2002b), 38. We should keep in mind that the attempts to calculate exact equivalencies in land for the property classes are riddled with so many uncertainties that they are based on highly hypothetical and provisional grounds. In the first place, we do not know what exactly the 'wet and dry' measures mean. For related arguments, see Chrimes (1932), 2-4; Thomson (1953), 840-50; Jeffery (1976), 107.n.6; Andrewes (1982), 383; Rhodes (1993), 141-42; id. (2015), 129; Stanley (1999), 208; van Wees (2001), 47; de Ste. Croix (2004), 32-40. See also Skydsgaard's pessimistic view ((1998), 50-54).

<sup>40</sup> Bugh (1988), 27; Rosivach (2002b), 36; de Ste. Croix (2004), 47.

<sup>41</sup> Spence (1993), 183, 272-86.

<sup>42</sup> van Wees (2002), 63-64.

<sup>43</sup> Hansen (1981), 22 takes them as zeugitai.

<sup>44</sup> Starr (1977), 154-55, 244 nn.24, 25; van Wees (2001), 51-54; de Ste. Croix (2004), 46-48; Raaflaub (1999), 138, 150-51 n.49; id. (2006), 405; Pritchard (2010), 23

Besides, if the two higher classes held so much land, it seems inevitable that most of the thetes were landless or their land was too small to be subsistent. In that case, the Archaic and Classical Athenian societies must have been highly polarized between the well-off and less well-off. Some scholars have actually assumed, sometimes by etymological associations and sometimes a priori, that thetes were men who were free born but of no substance or were landless, hired laborers.<sup>45</sup>

In fact, Aristotle reports that the thetes had at least an annual produce below 200 measures. Some classical sources imply that there were ‘the poor [*penētes*]’ who were distinctly different from the dispossessed. In Aristophanes’ *Plutus*, Plutus says ‘The beggar (*ptōchos*), whom you have depicted to us, never possesses anything. The poor man (*penēs*) lives thriftily and attentive to his work; he has not got too much, but he does not lack what he really needs (552-54).’ Aristotle also says, citing Hesiod at *Pol.* 1252b12, that the ox serves instead of a servant for the poor (*penētes*), which implies that the poor owned oxen for ploughing.

Some scholars hold that the thetes (at least some of them, in our view) were small farmers who cultivated farms less than 40 plethra (3.6 ha), perhaps an average of 20 plethra (1.8 ha). Although modest, the thetic farms, farmed by continuous spade or hoe cultivation (without biennial fallow) must have been enough to sustain the thetes themselves and their families.<sup>46</sup> Foxhall (1997), 129, 131-32 supports this argument with a case study of the subsistent wheat-producing farmers on Methana in the 1970s, whose average holdings were 3.5 ha including the land used for other crops, fallow and trees. He supposes that the thetes included relatively wealthy landholders who could serve as ‘odd hoplites’. Van Wees (2001), 51 also suggests that the thetic farms averaged 4.3 ha, which happens to be the size of the so-called typical ‘family’ or ‘hoplite’ farm. Besides, in early Greek society, where landholding was a condition of membership of a community, the number of the landless and dependent could not have been numerous. Even if landless citizens became increasingly numerous since the Persian Wars, not all of them may not have been men of no substance but more than a few may have had other means of subsistence than landed property.<sup>47</sup>

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<sup>45</sup> Thomson (1953), 848; Jeffery (1976), 93; Pritchard (1994), 116-17; Hanson (1996), 290-91. cf. Jameson (1992), 145.

<sup>46</sup> Burford-Cooper (1977/78), 170-71; Hodkinson (1988), 39.

<sup>47</sup> Raaflaub (2006), 414-15. Lys. 34.4 and Dion. Hal. *Arg. ad Lysiam* 34 imply that at the end of the fifth century there were about 5,000 landless citizens who could serve as horsemen, hoplites or archers.

If the property qualification of the zeugitai is authentic and all or the majority of the hoplites were zeugitai, the hoplites are too numerous. This is true even if we suppose that properties of the zeugitai average 50 plethra (4.5 ha), since 13,000 hoplites in 431 occupied 58,500 ha of land (i.e., 60% of 96,000 ha, which is the maximum calculation of the Attic arable land).<sup>48</sup>

### **Zeugitai as a socio-economic entity**

Scholars have made two alternative assumptions about the property qualification of the zeugitai: (1) the zeugitai are less numerous or (2) the property qualification is not accurate or is somehow later modified.

According to van Wees ((2001), 51-54; (2002), 68; (2006), 361, 366, 373-74) the zeugitai were wealthy elite who comprised no more than 5% to 10% of adult male citizens. Athens in the time of Solon was a highly-polarized society, with 10-20% of the population dominating most of the arable land. At that time, most of the thetes were not only *de jure* but also *de facto* excluded from hoplite service because they could not afford the arms and armor. Van Wees suggests that although more and more of the thetes began serving on a voluntary basis and ended up comprising at least a third of the hoplites in the Classical period, the thetes in principle remained excluded from hoplite service. Formal military service connected with political privileges was always monopolized by the wealthy elite.

We suppose that the thetes always not only *de facto* but also *de jure* could and did serve as hoplite, while, as van Wees maintains, most probably more and more of them served over time. There is practically no ground, as we have seen, for suggesting that the thetes were either formally or *de facto* excluded from military service. In our view, even in the Archaic period the thetes may have afforded and performed military service despite contrary arguments.<sup>49</sup> The accounts of Aristotle ([*Ath. Pol.*] 2.2; 4.5) and Plutarch (*Sol.* 13.3-5) that ‘all the land was in the hands of a few’ and that most people were in debt and forced to work the lands of the rich as dependents are not true or most likely exaggerated. There is a few evidence (Thuc. 1.126.7; cf. Hdt. 5.71) that contradicts this. It is conceivable that while some poor citizens fell into debt, the others remained independent.<sup>50</sup>

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<sup>48</sup> Jameson (1992), 145.

<sup>49</sup> It has been stressed by some scholars that the Athenian army in the Archaic period was small and ‘aristocratic’, and that the mass of the population was barely involved in warfare. Frost (1984); Singor (2000); Pritchard (2010), 8-13.

<sup>50</sup> Murakawa (1986), 163-64; Rhodes (1993), 95; Itō (1999), 77, 79, 82-83, 91, 99, 103 n.18.

Other scholars have supposed that the property qualification of the classes may have never been defined as Aristotle and other secondary sources state since neither Aristotle nor the other sources seem to have solid and reliable information.<sup>51</sup> De Ste. Croix (2004), 25-26, 48-51 argues that there was not any quantitatively fixed property qualification for the other classes than the pentakosiomedimnoi; rather, the class that a citizen belonged to was defined by the kind of military service that he performed. According to de Ste. Croix, the hippeis and the zeugitai were basically those who could afford service as horseman and hoplites while the thetes were those who could not.<sup>52</sup>

However, even if the precise property qualifications and the ratio of the production requirements for each of the classes cannot be accepted at face value, this does not necessarily mean that a property requirement never existed, because the property classes were always intimately connected with political privilege; i.e., office-holding.<sup>53</sup> Two dedications postdating 480 that may commemorate the advancement of some citizens to higher classes, implies that the system still worked at that time (Arist. [*Ath. Pol.*] 7.4; Poll. *Onom.* 8.131; *IG I<sup>3</sup>* 831 = Raubitschek 1949. No.372 = Hansen 1983. No.269).<sup>54</sup> That the office of the archons was opened to the zeugitai in 457/6 indicates the same direction.<sup>55</sup> It is probably not until the offices connected with the property classes became increasingly less significant and the offices without any connection to it (such as the *strategoí*) gained importance that the property classes may have lost their material basis. In the mid-fourth century, a certain Pronapes was accused of declaring a low property assessment and yet aspiring to hold office as if he were a member of the hippeis class (Isae.7.39). Arist. [*Ath. Pol.*] 47.1, cf. 8.1 and 7.4 apparently indicate similar situations.<sup>56</sup> Nonetheless, the case of Pronapes also implies that even at that time, there was at least a conception that the higher property classes should represent a certain amount of

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<sup>51</sup> Busolt-Swoboda (1920-1926), 822 n.1; Gabrielsen (2002a), 97-98; (2002b), 212-13; Rosivach (2002b), 41 et n.20; id. (2012), 146 n.9; de Ste.Croix (2004), 31-32. cf. Rhodes (1993), 143.

<sup>52</sup> Also see Spence (1992), 181-82.

<sup>53</sup> Foxhall (1997), 132; Rosivach (2012), 146 n.9. cf. Chambers (1990), 172; van Wees (2001), 54-56.

<sup>54</sup> As for the authenticity of Arist. [*Ath. Pol.*] 7.4, see Rhodes (1993), 144-45; de Ste. Croix (2004), 70-71. Keesling (2015) maintains that neither of the two dedications was related to the property classes.

<sup>55</sup> Hansen (1991), 45; van Wees (2001), 46.

<sup>56</sup> Kahrstedt (1934), 251-52; Chambers (1990), 361; Rhodes (1993), 145-48, 551; Spence (1993), 181 n.69; Rosivach (2002b), 44; Gabrielsen (2002b), 214; de Ste.Croix (2004), 9-11; van Wees (2006), 368.

property. Evidence from the late fifth century and fourth century, although scarce, seems to indicate the same direction.<sup>57</sup>

Therefore, we do not agree with de Ste. Croix's argument that the kind of military service which a citizen performed decided what property class he belonged to. If the property classes had been founded on such a flexible system, it would have never lost its material basis, since the property classes should have always consisted of the citizens who were wealthy enough to perform military service. However, we do agree with de Ste. Croix that there may not have been a fixed quantitative property qualification for military service. And if it was the case, there is no reason to connect the property classes with military service despite de Ste Croix's argument.

For instance, the way of enrolling in the cavalry mentioned by Aristotle ([*Ath. Pol.*] 49.2) and Xenophon (*Eq. mag.* 1.9-12) strongly suggests that all that was required to be eligible for cavalry service was the ability to keep a horse and maintain a high level of physical fitness.<sup>58</sup> Neither Aristotle nor Xenophon mention any fixed assessment or the property classes. The enrollment seems to have depended on self-assessment. Those from whom the cavalry was selected must have overlapped with the hippeis; this must be why the Athenians exempted the hippeis as well as the pentakosiomedimnoi from embarking in 428 in order to enroll the cavalry force to defend Attica (see above n.20). However, this cannot mean that the hippeis were synonymous with the cavalry—the cavalry, which did not represent a particular social group, was essentially different from the hippeis, which was a certain socio-economic group.<sup>59</sup>

From our point of view, the same can be said of the hoplites. Both the rich and the poor must have served as hoplites. On the one hand, plenty of sources indicate that there were the rich who served either as horseman or hoplites or as both.<sup>60</sup> On the other hand, Socrates, whose property was said to be no more than 500 drachmas, served as hoplite at Delium in 431 and later at Potidaea in 424 (*Xen. Oec.* 2.3; *Pl.*

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<sup>57</sup> Arist. [*Ath. Pol.*] 39.6; [*Dem.*] 43.54; *Dem.* 24.144. A rider to an inscription (*IG I<sup>3</sup> 46*: mid-fifth century) specifies that colonists at Brea were to be drawn from the thetes and the zeugitai. Whatever the intention of the rider was, this implies that the two classes were conceived as distinct socio-economic groups at that time. There have been arguments about the purpose and the character of the Athenian cleruchy. Jacoby *FGrH.* 328F119.2112; Kahrstadt (1934), 254-55; Pritchard (1998), 126; Rosivach (2002b), 36-37; Gabrielsen (2002b), 220 n.70; de Ste. Croix (2004), 11; Moreno (2007), 93 et n.78; Guia-Gallego (2010), 261-62.

<sup>58</sup> It is unknown exactly when this way of enrollment of the cavalry was started, but it may have been as early as the late sixth or early fifth century. Bugh (1988), 14-20; Spence (1993), 9-16.

<sup>59</sup> Bugh (1988), 23-25, 32-34; Spence (1993), 181-82.

<sup>60</sup> *Lys.* 6.46; 14.6, 10, 14-15; 15.5-6; 16.3, 13, 16; *Pl. Sym.* 221a1-2; *Plut. Alc.* 7.3, 6; *Xen. Hell.* 2.4.24.

*Sym.* 221a1-2; *Plut. Alc.* 7.3, 6).<sup>61</sup> It was claimed that there were ‘many hoplites and horsemen and archers’ among the approximate 5,000 citizens who were landless at the end of the fifth century (*Lys.* 34.4; *Dion. Hal. Arg. ad Lysiam* 34).<sup>62</sup> Provided that the basic gear of the hoplite may not have been so expensive, it is most probable that at least some of the thetes could afford to and did serve as hoplites. We suggest that the Athenian hoplites must have been a much more broad-based military branch than the cavalry, and thus its socio-economic composition must have been much less homogenous.<sup>63</sup> There may not have been, therefore, neither fixed quantitative property qualification nor connection to the class of *zeugitai* for service as hoplites, which was a certain socio-economic group. Anyone, including the *zeugitai*, who had the will and ability to serve could and did.

### Conclusion

In this study, we have focused on assessing the time-honored theory that the property class known as the *zeugitai* was connected to military service as hoplites in Athens by reviewing the preceding arguments and the principal sources cited to support this theory. Our main conclusions are as follows; first, the etymological interpretation of the *zeugitai* as ‘soldiers in the same rank’, which has often been cited to argue that the *zeugitai* were a military category predating the reforms of Solon, is too dubious to make any persuasive argument.

Second, the well-known accounts of Thucydides (6.43; 8.24.2) contrary to the widely-shared arguments, attest neither that the Athenian *epibatai* in the Classical period were exclusively enrolled from the thetes, nor that the hoplites *ek katalogou* normally did not serve as *epibatai*. What Thucydides’ accounts do suggest is only that the Athenian *epibatai* were recruited as volunteers, regardless of what class they were from. Therefore it is not possible to deduce from these accounts either that the regular hoplites *ek katalogou* were not thetes but rather the *zeugitai* and the higher classes, or that the thetes were not obliged to do military service but served only on a voluntary basis. And, if the thetes were not excluded from military service as hoplites, we have no grounds for connecting the hoplites particularly to *zeugitai* in the Athenian military system.

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<sup>61</sup> Guia-Gallego (2010), 275 n.90 regards Socrates as one of the thetes. Van Wees ((2001), 60, 71 n.76; (2002), 68-69) holds that Socrates served as volunteer.

<sup>62</sup> Jameson (1992), 144; Isager-Skydsgaard (1992), 79; Spence (1993), 181 et n.68; van Wees (2006), 373.

<sup>63</sup> Gabrielsen (2002b), 214.

Third, the accepted view that the thetes were neither enrolled in the hoplite register (*katalogos*) nor under any obligation to serve as hoplites, unlike the higher property classes, is not based on any clear evidence and is therefore not tenable. Evidence directly attesting that the thetes did serve is scarce, but there are no solid grounds to deny this belief.

Finally, if the property qualification of the zeugitai is correct and each of them held 8.7 to 13 ha of land, the hoplites were too numerous to be zeugitai. Even if their property averaged 4 to 5 ha, the equivalent of a so-called ‘hoplite farm’, the hoplites were still too numerous. It is inevitable to suppose that the hoplites were a much broader group than the zeugitai.

In short, and in conclusion our view is that the class of zeugitai was not linked in terms of the military organization to service as hoplites in Athens through Archaic and Classical times. The hoplites consisted of citizens of military age, who were physically fit and could afford to serve, regardless of their membership of any Solonian property class. The hoplites did not represent neither a particular social group nor a certain class. This conclusion leads us to suggest that Aristotle’s theory: there was a link between socio-economic classes and the types of military service, and each class was rewarded with political privileges in proportion to the type of military service that it performed, may not be applicable to Athens at that time. That is to be verified through further study.

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TakachihoUniversity  
okadat@takachiho.ac.jp