

# Warfare and Agriculture: The Economic Impact of Devastation in Classical Greece

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WARFARE AND AGRICULTURE were near universal experiences in classical Greece, and they have naturally been much studied, both separately and in their interactions. A perennial area of interaction was the attack by hostile military forces on the land itself, “ravaging” or “devastation,” in which crops, livestock, buildings, and equipment were destroyed or plundered. The debate over the extent of the damage caused in ravaging attacks has now for some time been regarded as settled, in favour of the school which sees devastation as minimally damaging. This is an area central to understanding the strategy of the Peloponnesian War, and has a wider relevance in relation to other ancient warfare topics,<sup>1</sup> and to warfare as a whole. Therefore if the current academic consensus on devastation is unfounded, it ought to be challenged. To do so is the purpose of this paper.

There is *prima facie* evidence that sustained devastation

<sup>1</sup>The devastation of Italy in the Second Punic War, for example, has been much discussed. A. J. Toynbee, *Hannibal's Legacy: the Hannibalic War's Effects on Roman Life* (London 1965), argued that the economic effects of devastation in the third century B.C. were so severe as to persist until modern times. P. A. Brunt, *Italian Manpower, 225 B.C.–A.D. 14* (Oxford 1971), was sceptical, arguing that even the contemporary effect was not as bad as the sources pretend. T. J. Cornell, “The Effects of the Hannibalic War on Italy,” in T. J. Cornell, B. Rankov, and P. Sabin, edd., *The Second Punic War: A Reappraisal* (London 1996) 97–117, considers the views of both Toynbee and Brunt; he shows that Toynbee's more far-fetched claims must be discarded, but nonetheless concludes that the devastation of southern Italy had profound economic impact.

could cause food shortage to such an extent that it could be used as a coercive instrument.<sup>2</sup> Hence this view had general currency amongst Thucydidean scholars in the beginning and middle of the last century.<sup>3</sup> But an opposing school of thought, sceptical of devastation's economic effect, has also been present since at least as far back as the nineteenth century.<sup>4</sup> This school has found much favour since the 1980s. Its adherents have argued that the destruction of ancient agriculture was too labour-intensive to be practised on a scale that would cause a typical community real hardship. Prominent amongst these sceptics is Victor Hanson, whose *Warfare and Agriculture in Classical Greece*<sup>5</sup> is a most important contribution to the debate, thoroughly researched and clearly argued. But its argument contains several flaws that force him to conclude that meaningful economic damage was not typically achievable. The question that arises out of this conclusion is, Why, if not as an economic attack, was devastation practised again and again? Foxhall's suggestion<sup>6</sup> that it could be used selectively to sow dissent has support in the sources,<sup>7</sup> but is surely insufficient motive on its own (even

<sup>2</sup>E.g. Xen. *Hell.* 7.2.1: in the early 360s Thebes' allies were ravaging Phlius, attempting to make her abandon her alliance with Sparta; the city was "in great difficulties and suffering from a shortage of food" (transl. Warner). Xenophon may or may not have been biased towards Sparta's allies, but nonetheless his audience had experienced many years of war, and it is unlikely that he would have presented a phenomenon if it were incredible: the important point is not whether Phlius was in difficulties due to devastation but that fourth-century Greeks could be expected to believe it.

<sup>3</sup>E.g. G. B. Grundy, *Thucydides and the History of his Age*<sup>2</sup> I (Oxford 1948) 82; A. W. Gomme, *A Historical Commentary on Thucydides* I (Oxford 1945) 10–12.

<sup>4</sup>E.g. H. Delbrück, *Die Strategie des Perikles* (Berlin 1890) 110–111: "It takes time and trouble to destroy grainfields, trees, and vineyards."

<sup>5</sup>V. D. Hanson, *Warfare and Agriculture in Classical Greece*<sup>2</sup> (Berkeley 1998: hereafter HANSON). The second edition contains Hanson's response (at 201–251) to the literature that appeared in the decade-and-a-half following the appearance of the first (1982).

<sup>6</sup>L. Foxhall, "Farming and Fighting in Ancient Greece," in G. Shipley and J. Rich, edd., *Warfare and Society in the Greek World* (London 1993) 142–143.

<sup>7</sup>E.g. in 431 the Spartans ravaged the land of the Acharnians "with their 3000 hoplites ... an important element in the state" (Thuc. 2.20, transl. Warner),

according to Hanson: 208–209). Hanson himself has continued to maintain that devastation was a “catalyst for hoplite battle,” essentially an intolerable affront to a city’s pride, and part of the “extensive rituals of classical hoplite warfare.”<sup>8</sup> This explanation I will term the “provocation theory.” Ober has broadly agreed with Hanson, noting how the policy of Pericles marked a watershed after which the “agonal system” (Ober’s term: the competitive framework within which to be ravaged by other Greeks—barbarians did not count—was a dishonour on a city that only battle could wipe out) started to break down.<sup>9</sup> The provocation theory of devastation, and the view that damage inflicted was light, is now the accepted wisdom, as witness a recent introductory work on classical Greece.<sup>10</sup>

This article is a reassessment; I argue that in fact ravaging was a viable instrument of economic coercion in most instances of classical Greek warfare. If one accepts that devastation was worthwhile purely for the economic damage it caused, the otherwise awkward question Why devastate? is answered.<sup>11</sup> I will follow the three-part plan of Hanson’s *Warfare and Agriculture*: the first two parts deal with “the attack on agriculture” and “the defence of agriculture.” In the third part, whereas

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and in the same year Pericles had feared that his estate would be spared, to obvious invidious effect (2.13). (Pericles’ fears also at Plut. *Per.* 33.2; Plutarch tells a very similar story about Fabius, *Fab.* 7.2–3.) The Old Oligarch (2.14) says that “the rich and the farmers” of Athens were always more likely to want to appease the enemy.

<sup>8</sup>Hanson 180; also his *The Western Way of War: Infantry Battle in Classical Greece* (London 1989) 34.

<sup>9</sup>J. Ober, *Fortress Attica: The Defense of the Athenian Land Frontier, 404–322 B.C.* (Leiden 1985; hereafter OBER) 34–37.

<sup>10</sup>H. van Wees, “The City at War,” in R. Osborne, ed., *Classical Greece, 500–323 B.C.* (Oxford 2000) 96–98. An exception, however, is J. M. Bryant, “Military Technology and Socio-Cultural Change in the Ancient Greek City,” *Sociological Review* 38 (1990) 484–516, at 511 n.7.

<sup>11</sup>Note however that I do not argue that severe agricultural devastation on its own explains why hoplite battles occurred. There are other strategic and cultural issues: see for example E. Will, “La territoire, la ville et la poliorcétique grecque,” *RHist* 253 (1975) 297–318.

Hanson used the devastation of Attica as a case study, I urge that the case of Attica is almost certainly the most misleading one available.

### I.1. The attack on agriculture: Techniques

Greek agriculture consisted mainly of the cultivation of the “Mediterranean triad” of cereals, olives, and vines. Hanson holds that cereals can be efficiently destroyed under the right conditions (of which more below), whereas olives and vines are prohibitively labour-intensive to destroy on a large scale, and in any case tend to recover vigorously (49–71). Thus two of the three main elements of Greek agriculture were very difficult to attack under ancient conditions, and Hanson’s second chapter is full of the problems of so doing. But this analysis is only partial, and turns out to be misleading, as it does not reckon the relative importance of each element. In fact, cereal production was the single most important activity in the rural economy, in terms of meeting dietary requirements. From a survey of the literary evidence for the ancient diet, and comparison with modern agrarian populations in the Mediterranean, Foxhall and Forbes have deduced that cereals contributed 70–75 per cent of required calories.<sup>12</sup> Therefore to subsistence farmers, a loss of even half the year’s cereals would be as serious as the complete elimination of the year’s olive and vine products.

As well as being overwhelmingly the most important element, cereals were, even according to Hanson, the easiest to destroy. It is an error, in other words, to invest the rural economy with the toughness of vines and olives when these were relatively minor components. We may speculate that some communities were able to minimise their vulnerability by focussing on the production of resilient cash crops like vines, and being net

<sup>12</sup>L. Foxhall and H. A. Forbes, “Σιτομετρεία: The Role of Grain as a Staple Food in Classical Antiquity,” *Chiron* 12 (1982) 74.

importers of grain. However we should still note that this implies that somewhere else (albeit perhaps very far off) there were net grain exporters who were correspondingly more vulnerable to devastation.

The key issue is whether an enemy army could substantially destroy the year's grain harvest, either in the fields or once it had been gathered. There were three possible techniques for destroying grain in the fields: cutting, trampling, and burning; but the sources seldom specify which was used in particular instances.<sup>13</sup> Cutting was almost as labour-intensive as harvesting itself, or perhaps more so if the devastators did not have the appropriate tools. They would have to disperse through the fields, whilst substantial detachments remained under arms, against the danger of enemy patrols or sudden sorties. Nonetheless it was practised, probably not so much for its destructive effect, but, since armies sought to live off the land whenever possible, as a means of procuring rations<sup>14</sup> (and this fact allows some quantification of the damage inflicted, see 248–250 below). Trampling, likewise, demanded substantial labour and dispersion on the part of the devastators, though it is also attested: Cleomenes had his men drag planks across grainfields, and Alexander's troops used spears in the same way.<sup>15</sup> The advantage of cutting and trampling was that, though laborious, they could be used on green crops, unlike potentially the most efficient method, burning. This required very little labour and was, of course, extremely destructive. So much so, that serious collateral damage was possible, as when Alyattes of Lydia inadvertently burnt down the temple of Athene at Assesus whilst destroying grain (Hdt. 1.19). The limitation of burning was that it could only be achieved in a short window

<sup>13</sup>As Hanson points out, 49–50.

<sup>14</sup>Thuc. 6.7 details an operation in which Spartan ravagers actually carried off grain in carts.

<sup>15</sup>Plut. *Cleom.* 26.1; Arr. *Anab.* 1.4.1–2.

between the ripening of the crop and the harvest. (Hanson's experiments [219] have confirmed that green grain is incombustible.) Harvesters would start work immediately the grain was ripe, especially if invasion was imminent. Therefore in Greece, the window of opportunity for burning occurred from mid-May to mid-June depending on local climatic conditions (Hanson 50–51).

Just as Hanson does not give a proportional weighting to the component crops of his "agricultural triad," neither does he weight the components of the grain-destroying triad: trampling, cutting, and burning. If they are assumed to have been practised equally, then devastation would have been laborious indeed. However, since burning was the most effective technique, it is not unreasonable to assume it was employed whenever possible. Summer was the principal land campaigning season, and this increased the chance of troops being in enemy territory during the "burning-window." Furthermore, for naval expeditions, the opening of the sailing season around 27th May coincided conveniently with the ripening of the grain.<sup>16</sup>

The narrow optimum window for devastation was around harvest time, because burning could be used. This is sometimes cited in disparaging devastation's viability (Hanson 52), especially as it is when farmer-soldiers would want to be on their own land.<sup>17</sup> But the fact is that, when the sources are specific as to when devastation took place, it was often exactly at that time of year, and we ought to assume that burning was used. For example, the series of five invasions of Attica started by Archidamus took place: "at mid-summer when the grain was

<sup>16</sup>L. Casson, *Ships and Seamanship in the Ancient World* (London 1995) 270–273, citing Vegetius 4.39 ("from the 6th day before the kalends of June, until the rising of Arcturus, that is the 18th before the kalends of October, is believed to be the safe period for navigation"); 270 n.3 lists the exceptional winter voyages recorded by Thucydides.

<sup>17</sup>Thuc. 3.15: "They decided on the invasion of Attica ... the other allies were slow in coming in, since they were busy in harvesting their corn."

ripe" in 431; "at the beginning of summer" in 430; "at the time the grain was ripe" in 428; "summer" in 427; "before the grain was fully ripe" in 425, presumably in anticipation.<sup>18</sup> The ravaging cruise undertaken by Carcinus' Athenian fleet was simultaneous to the 431 invasion (Thuc. 2.23), and Pericles' cruise the next year took place, again, whilst the Peloponnesians were in Attica (2.56). For an earlier example, the eleven annual invasions of Miletus by the Lydians all took place "when the grain was ripe," with fire specified as the technique of destruction (Hdt. 1.19).

Thucydides' comments on Archidamus' first invasion of Attica confirm that we ought to assume cereals were burnt in summer devastation operations, even if the source does not mention it (and usually they do not). Although burning is not explicitly mentioned, we can certainly deduce that it was used:

But when they saw the army at Acharnae, only seven miles from Athens, they could no longer put up with the situation. Their land was being laid waste before their very eyes—a thing that the young men had never seen happen and the old men had seen only at the time of the Persian invasion (2.21).

Enemy soldiers could not, from the city, have been seen cutting and trampling crops seven miles away. Therefore, if the majority of the Athenians, not just a few who had been on patrols, had seen the devastation with their "very eyes," palls of smoke are what, to their consternation, they saw—a scene that anyone who knows Athens, Acharnae, and their environs, will vividly imagine.

The destruction of harvested grain must also be considered. Concentrated on the threshing floor or in granaries, then left behind by a fleeing populace, it would have spared attackers the trouble of spreading out across the fields. It could be attacked with fire or water. Since the Athenians burnt grain in

<sup>18</sup>Thuc. 2.19, 2.47, 3.1, 3.26, and 4.2.

Sicily in spring 414 (Thuc. 6.94), when the crop in the field would still have been green, as Hanson points out (51), this must have been stored grain, which is highly flammable.

Water could be used as a destructive agent. It was a problem in grain storage, even acting on its own. A third-century Euboean inscription instructs the granary overseer to

inspect the wheat granaries as follows: during the six months of summer after each rainstorm; during the winter months, every ten days. And if there has been any seepage of water into the wheat stores, then they are to make repairs immediately.<sup>19</sup>

Having broken into the granary, ravagers could administer water themselves, or leave the elements to do the job.<sup>20</sup> Harvested grain was at least as vulnerable as it could be in the field, if it could be accessed. The question of security at the farm will be discussed below.

One further method of disrupting cereal production was available to devastators. Rather than destroying crops once they had matured, the harvest could be denied by simply occupying the land at sowing time. Agesilaus was advised to do this in Acarnania, but demurred, apparently preferring to have something to devastate the next year. His reluctance to “kill the hostage,”<sup>21</sup> *i.e.* the Acarnanians’ cereals, surely indicates the effectiveness of this technique. No physical destruction was required, merely a force large enough to protect itself, and sufficiently frightening to keep the rural population off of the fields.

Invading troops would find houses and the tools and property they contained obvious targets for destruction, and this

<sup>19</sup>M. B. Hatzopoulos, *Macedonian Institutions under the Kings II* (Athens 1996) no. 13.

<sup>20</sup>Polyaen. *Strat.* 5.1.3 contains Phalaris’ stratagem: bribe the enemy granary wardens to sabotage the granary roofs.

<sup>21</sup>Xen. *Hell.* 4.6.13. *Cf.* the words put into Archidamus’ mouth at Thuc. 1.82, “you must think of their land as though it was a hostage in your possession, and all the more valuable the better it is looked after.”



could be achieved quite easily by fire.<sup>22</sup> Devastators might, however, prefer to take items away with them. The Thebans did so during the Decelean occupation; living close by, they even carried off the tiles and timbers of the houses. Much of this property was third-hand by the time the Thebans got it, also having come into Athenian hands by way of plunder (*Hell.Oxy.* 12.5).

### I.2 The attack on agriculture: Conduct of ravaging operations

The techniques of destruction have thus far been considered in the abstract. The following discussion will put them into their operational context. All ravaging operations can be categorised as one of three types: “general invasion,” in which an overwhelming force invaded a territory; “amphibious raiding,” in which relatively small forces of ravagers went ashore for short periods at distantly separate points to devastate a littoral; and “fortified occupation,” or *epiteichismos*, in which a fortified post was set up, from which (again, in relatively small numbers) troops could sortie and ravage the surrounding area on a permanent, or at least an open-ended, basis.

#### *General invasion*

The overwhelming strength of invasion forces cowed defenders, and thus gave the invaders freedom to devastate. It is of course impossible that Xerxes’ army in Greece was as huge as Herodotus claims, but it was certainly large enough to rule out a preclusive Hellenic defence north of the Isthmus.<sup>23</sup> And so the Athenian, Thespian, and Plataean countrysides were torched (Hdt. 8.50). Similarly, the Athenians thought it wiser not to meet any of the 431–425 B.C. invasions head-on.

<sup>22</sup>D. H. Gordon, “Fire and the Sword: The Technique of Destruction,” *Antiquity* 27 (1953) 149–152.

<sup>23</sup>Whatever Leonidas intended, what he in fact achieved at Thermopylae was a delaying action (see 247 below). There was also the plan to defend Tempe (Hdt. 7.173), to where the Greeks actually deployed. In the end, though, second thoughts prevailed.

General invasions occurred within a single season, usually summer. On the rare occasions we are given a specific period, about thirty days seems to be the norm. Of the 431–425 invasions of Attica, the second was the longest, at forty days; the last was fifteen days, which was considered “very short” (Thuc. 2.57, 4.6). Sitalces’ devastation in Macedonia and Chalcidice in winter 429/8 is also said to have lasted thirty days (2.101).

Surprise would have been difficult to achieve, as a large army would approach much more slowly than messengers or spies bringing early warning,<sup>24</sup> and an allied force would take days to muster, even before it set out. This would give vital time for the rural population to evacuate their property from the countryside. In 431, for example, Pericles realised the Peloponnesian invasion was coming while the enemy “were either still mustering at the Isthmus or on their march,” and on this occasion a particularly thorough evacuation was effected.<sup>25</sup> On the other hand, the experience of Plataea in the same year shows a surprise was still possible, if a nearby attacker sent ahead a small, fast-moving advance guard.<sup>26</sup>

The capacity of a general invasion to eliminate, to all intents and purposes, the grain harvest of an invaded territory is demonstrable. In the invasions of the Archidamian war the Peloponnesians planned to feed themselves on the harvest of Attica. Since the Athenians controlled the surrounding waters, and to transport food supplies any great distance overland is

<sup>24</sup> Armies marching at fifteen miles per day would clearly be outstripped by lone messengers, who could take advantage of fast ships, or at least travel on horseback: consider the man who set out from Euboea to take a warning to Mytilene; he took two days (Thuc. 3.3).

<sup>25</sup> This time “even the wood-work on the houses themselves” was evacuated (Thuc. 2.14). The same thoroughness was not achieved before Agis’ 413 invasion (*Hell. Oxy.* 12.4).

<sup>26</sup> The Plataeans were caught with “men and property still out in the fields, as the attack had been made in peacetime, and was quite unexpected” (Thuc. 2.5).

not operationally viable,<sup>27</sup> local procurement was the only option. This is confirmed by the 425 invasion, which lasted only fifteen days: the invaders went home, because it was too early to harvest the grain.<sup>28</sup> And since in the other invasions they mostly stayed until their supplies were running out,<sup>29</sup> it can be inferred that they left such sparse remnants of the harvest as were not practicable for them to forage—thus the harvest can be seen effectively to have been destroyed. In fact, the amount of Attic grain that the Spartans and their allies must have eaten can be calculated. If we assume, extremely generously, that they arrived with ten days supplies,<sup>30</sup> then during a thirty-day occupation of Attica, they would still have to find twenty days' rations by foraging. If their daily ration was two *choinices* (certainly a bottom range estimate),<sup>31</sup> their army of 30,000 hoplites<sup>32</sup> (along with the same number of attendants and followers)<sup>33</sup> would have had to procure 3.6 million *choinices*, or

<sup>27</sup> D. Engels, *Alexander the Great and the Logistics of the Macedonian Army* (Berkeley 1978: hereafter ENGELS) 20.

<sup>28</sup> Thuc. 4.6. This does not imply that the Spartans arrived with enough rations for fifteen days. They must have captured some stored supplies in Attica, regardless of the state of the harvest.

<sup>29</sup> Thuc. 2.23, 3.1, 3.26, 4.6.

<sup>30</sup> This figure is, in fact, just on the impossible side of generous: Engels 18–22, cf. H. Delbrück, *History of the Art of War I* (Westport 1975) 425.

<sup>31</sup> Engels 125; the figure of 4 1/2 *choinices* agreed for the Spartans on Sphacteria (Thuc. 4.16) is high, and seems to represent an attempt to stockpile.

<sup>32</sup> The estimate of J. Beloch, *Die Bevölkerung der griechisch-römischen Welt* (Leipzig 1886) 152. Other estimates—compiled in D. Kagan, *The Archidamian War* (Ithaca 1974) 19 n.8—either concur or in a few cases raise the figure. An isolated downward figure is Beloch's own subsequent revision, to 25,000 ("Griechische Aufgebote II," *Klio* 6 [1906] 77).

<sup>33</sup> A figure of one follower per hoplite ought to be used as the average for the invasions of Attica. Certainly Herodotus' seven helots per Spartiate (Hdt. 9.10, 9.29) ought not to be applied generally, if at all, although if a segment of the army was thus attended, it would bring the average right up. Lazenby, noting Hdt. 7.229 and Thuc. 4.8, concurs that "there is reason to believe that every Spartan hoplite on campaign was accompanied by such a batman, usually a helot": J. F. Lazenby, *The Spartan Army* (Warminster 1985) 30. The Macedonian army under Phillip and Alexander, with a ratio of one servant to every four soldiers, is considered an example of ultra-streamlining (Engels 12).

75,000 *medimnoi*.<sup>34</sup> In the forty-day invasion of 430, with at least thirty days' rations to forage for, the figure would have been over 110,000 *medimnoi*. Because of her peculiar wealth and imperial power, Athens could withstand this for a time (see 249–250 below), but for most cities the inroads of even much smaller armies were clearly a very serious problem.

*Amphibious devastation*<sup>35</sup>

At the same time as Archidamus was first invading Attica, around harvest 431, an Athenian fleet of 100 ships set out carrying a force of 1000 hoplites and 400 archers. It was later reinforced by 50 allied ships, with perhaps a proportionate number of troops. This fleet cruised around the Peloponnese, putting troops ashore on numerous raids:

After doing damage at various places, they landed in Spartan territory at Methone and made an attack on the fortifications there, which were weak and had been left without a garrison. However, Brasidas ... happened to be in this district with a special detachment of men. When he realised what was happening, he came to the support of the defenders [and forced the Athenians to abandon the operation] ... After this the Athenians set sail and continued their voyage around the coast. They landed at Pheia, in Elis, and spent two days in laying waste the land ... They then put to sea again, abandoning Pheia, since by this time the main army of the Eleans had come up to resist them. The Athenians continued their cruise, laying waste to other places as they went (Thuc. 2.25).

This first Athenian expedition is a good example of the type, whose main characteristics were unpredictability, the relatively small numbers of raiders involved,<sup>36</sup> and short duration of each

<sup>34</sup> At two *choinices* per man per day, for 60,000 men for twenty days.

<sup>35</sup> H. D. Westlake, "Seaborne Raids in Periclean Strategy," *CQ* 39 (1945) 75–84, concludes, "there remains the view that devastation ... which was the chief achievement of these operations, was also their chief object."

<sup>36</sup> Carcinus had 1400. In Thucydides we have other marine contingents numbering a few thousand, *e.g.*, Pericles with 4300 (Thuc. 2.56); Spartan Cnemus with 1000 (2.66); Nicias with 2000 (3.91), then 2000-plus (4.53–56),

foray ashore, frequently terminated by the arrival of reserves from inland.

Predicting where raiders would strike was difficult, if not practically impossible, owing to the superior speed and radius of action of naval forces. Recent work on triremes suggests that passages of fifty nautical miles in twelve hours are possible.<sup>37</sup> Admittedly, this would require favourable sailing conditions, but fleets devastating an extensive littoral were not tied down to specific targets; they could devastate wherever the best winds took them. Furthermore, even relatively short hops across gulfs or between islands could totally wrong-foot a defender tied to the land. Amphibious devastation was therefore difficult to counter: although a wide area would be threatened, the devastators would go on to strike only a few places. General evacuation would be an overreaction, wasteful of time and labour. On the other hand, once the fleet was in sight, local evacuation would be hasty, and leave a lot of property behind. Land-based defenders would also find it very difficult to use their military resources. If they concentrated forces in one place, the raiders would exploit their superior mobility to strike elsewhere; conversely, detachments strung out along the coast would be spread so thin that raiding forces of a few thousand would confidently take them on.<sup>38</sup> Finally, as long as the raiders controlled the sea they could decide when to fight and when to retreat with impunity, as in Carcinus' voyage.

The dynamics of this situation, if not already known, came to be well understood during the Peloponnesian War. Consider the

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then 2600-plus (4.129); Charicles with 1200 (7.20); Diitrephes with 1300 (7.29). Thucydides explicitly states that each of these carried out devastation.

<sup>37</sup> J. F. Coates, *The Trireme Trials 1988: Report on the Anglo-Hellenic Sea Trials of Olympias* (Oxford 1990) 38. Casson (*supra* n.16) 281–296 presents evidence that support this conclusion.

<sup>38</sup> When the locals tried to oppose Cleopompus' devastation of Locris, he defeated them at Alope (Thuc. 2.26). Nicias' raiding force also defeated the Cytherians (4.54).

vexation caused to the Spartans by amphibious devastation, and the best response they could devise,

committed as they were on every side to a form of warfare where mobility was what counted and attacks were difficult to guard against. Thus they raised a force of 400 cavalry and a force of archers ... they were faced with something outside the scope of their existing organisation, namely a war fought on the seas and against Athenians (Thuc. 4.55).

The Old Oligarch sums up the situation more generally:

Again, a sea power can ravage the lands of those more powerful than itself, something a land power cannot always do. For they can sail along until they reach a place where there is no enemy, or only a few, and if the enemy approach, can embark and sail away. In this way, it is less likely to get into difficulties than a land army (2.4).

In comparison with general invasions, amphibious raids were of short duration and involved small numbers of troops. Nevertheless, because their unpredictability and sudden onset largely precluded the effective removal of property, they could cause disproportionate damage. Furthermore, although each raid was short, several would be mounted on each voyage.<sup>39</sup> What most speaks against Hanson's provocation theory of devastation is the frequent occurrence of these raids in which contact with enemy troops was strenuously avoided. The aim clearly was to harm agriculture, and *avoid* decisive combat, although weak and isolated enemy posts might be set upon. Ober's agonal system might just accommodate amphibious raiding, if one argued that the Athenians were able to wipe out the dishonour of their territory having been devastated by retaliation in kind, rather than hoplite battle.

<sup>39</sup> E.g. Thuc. 2.23–25, 2.56, 3.91, 4.53–56, 6.105.

*Fortified occupation (epiteichismos)*<sup>40</sup>

The Spartan fort at Decelea is the example of fortified occupation for which we have the most evidence. It was established in the 413 invasion, and a contingent remained there until the end of the war, ravaging Athenian territory unremittingly. Decelea was more serious than the pre-Pylos invasions, and very damaging indeed, Attica being made largely inaccessible:

The occupation of Decelea, resulting, as it did, in so much devastation of property and loss of manpower, was one of the chief reasons for the decline of Athenian power. The previous invasions had not lasted for long and had not prevented the Athenians from enjoying the use of their land for the rest of the time; now, however, the enemy were on top of them throughout the year ... The Athenians therefore suffered great losses. They were deprived of the whole of their country; more than 20,000 slaves, the majority of whom were skilled workmen, deserted, and all the sheep and farm animals were lost.<sup>41</sup>

A fortified post gave ravagers a safe retreat, akin to the ships of amphibious raiders. This meant that a relatively small number could operate in safety. In turn, this manpower economy allowed Decelea, for example, to be manned all year round “with garrisons from the various cities relieving each other at fixed intervals” (Thuc. 7.27). Like amphibious raiding, fortified occupation was a pervasive threat, but in time rather than space, perennial rather than ubiquitous. Importantly, the sowing of cereals could be prevented.

Decelea may be the oftenest cited example, but fortified occupation seems to have been an Athenian innovation, long before Alcibiades suggested it to Agis. Other incidences conforming to the type are the forts at Pylos (occupied 425–409: Diod. 13.64, Thuc. 5.56), at the end of the Laconian peninsula op-

<sup>40</sup> For a wider discussion of this phenomenon see H. D. Westlake, “The Progress of *Epiteichismos*,” *CQ* N.S. 33 (1983) 12–24.

<sup>41</sup> Thuc. 7.27. The Thebans bought the slaves and other property at a low price (*Hell. Oxy.* 12.4).

posite Cythera (occupied 413–411: Thuc. 7.26, 8.4)), and at Delphinium on Chios (established in 412 and certainly still there in summer 411: 8.38–40, 62–63). Each of these is a long-term establishment to which slaves deserted and from which raids were launched (Thuc. 5.14). Whilst we are told relatively little of the harm done by the garrisons at Pylos and in Laconia, we should hardly imagine that they were any more tender than Agis' force at Decelea. The Corcyrean exiles fortified on Mt Istone (427–425) are said to have caused a "serious famine" in the city, although they were just 600 in strength (3.85, 4.2, 4.46.). Chios lacked the external resources available to Athens, and its experience is indicative of a more typical community's vulnerability to fortified occupation. Its countryside had been "extremely well stocked, and had had no damage done to it since the time of the Persian wars" (8.24), but barred from its fields by the fort at Delphinium, and blockaded at sea by an Athenian fleet, the people were reduced to starvation (8.56).

The attack on agriculture can be summarised as follows: cereals were by far the most important element in the rural economy, and of all the techniques for destroying them the most efficient were burning the ripe crop and the prevention of sowing. Burning was restricted to a month-long window, but this conveniently coincided with the usual campaigning and sailing season. General invasions were ponderous operations, and easy to see coming, but they demanded complete evacuation of the population and whatever property the invaded party wanted to save. Amphibious raids were hardest to guard against, and must often have caught people and their property outside the safety of fortifications—presenting a security problem much akin to piracy. Fortified occupations, maintained year on year, are recorded as doing the worst damage to communities, and were probably less manpower-intensive than seasonal general invasions.



## II. The defence of agriculture

The measures available to limit the damaging effects of devastation must now be considered. Low-level threats from raiding could be partially countered by strong buildings on the farm. In the face of general invasion, however, comprehensive evacuation was the only response. This was a lengthy process, as will be seen, so delaying actions by military forces were a complementary operation. Finally, any devastator could be harassed; this would stop him from dispersing safely, and tie up manpower that could otherwise be involved in ravaging.

### *Farm towers*

Farm towers of stout stone construction were a common enough feature of the Greek countryside, as is now well established. They were used for storage, and allowed the household to withstand low-level threats like peace-time brigandage.<sup>42</sup> When the threat was from amphibious raiding or fortified occupation, farmers with towers could have gone on working the fields, ready to beat a hasty retreat and wait for friendly reinforcements. In these circumstances, farm towers were conceivably quite defensible.

In time of general invasion it is unlikely that even the most intrepid householder would risk capture and (at best) enslavement in an attempt to defend his tower. Unmanned they would quickly have been entered; Hanson overstates the difficulties (75):

The only possible way to do this would be to pry out key stones in the lower wall with picks or shovels, and so undermine the whole building ... with the danger to the attacker from falling blocks.

Surely an easier route for an unopposed intruder would be via a ladder to smash through the top, whether this was a tiled roof

<sup>42</sup> W. K. Pritchett, *The Greek State at War* V (Berkeley 1991) 352–358.

or planked floor level. To be of any use, the towers presumably had some kind of door: this might also have been a point of attack. Furthermore, and regardless of property inside, damage to towers would have been an end in itself.

*Evacuation of movable property*

Livestock and other movable property could be protected from plunder or destruction by evacuating them to places of refuge—forts, fortified towns, islands<sup>43</sup>—along with the rural population. Livestock must be considered separately from inanimate property, because of crucial differences: livestock would move on its own, but needed to be fed, whereas property would not and did not.

Numerous references to evacuation<sup>44</sup> have encouraged a view of it as strongly countering devastation,<sup>45</sup> but the logistical implications for individual households have not been considered in enough detail. A brief attempt to do so will be made here, followed by a consideration of measures that were taken to win time for as full an evacuation as possible.

Estimation of the weight of all the movable property on the farm would be an interesting and essential element of a full logistical study of rural evacuation. Here it will suffice to consider just one bulky item, in order to demonstrate that comprehensive evacuation would be a lengthy operation, running into days or weeks. The item to be considered is the grain reserve stored at the farm, which is thought to have been considerable. Gallant cites comparative evidence from modern India, Africa, and Guatemala, and medieval England, which

<sup>43</sup> E.g. Euboea (Thuc. 2.14), Salamis (Hdt. 8.40).

<sup>44</sup> For a catalogue see Pritchett (*supra* n.42) 348–352. These instances are more fully discussed by H. Müller, “φυγῆς ἔνεκεν,” *Chiron* 5 (1975) 129–156.

<sup>45</sup> Hanson (104) cites Hdt. 5.34 and Thuc 5.115; but only the intent can be inferred from these passages, not the degree of success. Xen. *An.* 4.7.1, 4.7.17 are also cited, but it does not seem safe to deduce practice in Greece from the habits of the barbarian Taochi.

consistently shows that peasants seek to have 12–18 months' food in store. A law at Selymbria supports the conclusion that this was also the practice in ancient Greece: "private persons should hand over their grain to the state at a fixed price, keeping for themselves only one year's supply."<sup>46</sup> The weight of the grain component of this twelve-month supply has been estimated, in the case of a hypothetical six-member ancient household, as 1419 kg.<sup>47</sup>

Carrying capacity, in the logistical rather than ecological sense, has mainly been studied in the military context. Roman legionaries are thought to have routinely marched fifteen miles per day with kit weighing 68% of mean bodyweight.<sup>48</sup> There is little reason to suppose that those involved in agricultural labour were physically less fit than the Roman army. The Romans did march farther and with greater burdens on an emergency basis, but they had the advantage of equipment designed to distribute weight efficiently over the body. Sacks or baskets of grain are naturally more cumbersome and fatiguing to carry. If a factor of 68% is applied to the peasant household hypothesised by Foxhall and Forbes, their combined bodyweight (271 kg.) yields a capacity to carry a load of 184 kg. To this can be added the capacity of any livestock held. Logisticians usually consider a donkey to be capable of carrying 100 kg., although some evidence seems to indicate loads of up to 175 kg. were possible.<sup>49</sup> Here, an "emergency load" of 150 kg.

<sup>46</sup> T. W. Gallant, *Risk and Survival in Ancient Greece* (Stanford 1991) 94–95. The Selymbrian law is from [Arist.] *Oec.* 1348b33–1349a2.

<sup>47</sup> Foxhall/Forbes (*supra* n.12) 49 n.26. The family, based on World Health Organisation data, consisted of six members: (1) Female 60–69 yrs, 52 kg.; (2) Male 20–39 yrs, 62 kg.; (3) Female 20–39 yrs, 52 kg.; (4) male child 13–15 yrs; (5) female child 10–12 yrs; (6) child 7–9 yrs. For the purposes of the present study, the children's weights are estimated as 50, 35, and 20 kg.

<sup>48</sup> J. Roth, *The Logistics of the Roman Army at War* (Cologne 1999). This is based on Roth's average soldier weighing 66 kg. (10–12) and the reconstruction of legionary burden as 45 kg. (73–77).

<sup>49</sup> Engels 14; Roth (*supra* n.48) 205–206.

will be used. If a wagon was available it might be able to carry up to 550 kg.;<sup>50</sup> however, it is clear that ownership of draught oxen, and therefore vehicles, was far from universal.<sup>51</sup> From this data, it is clear that bringing in the grain stores alone would take a number of trips:

	Carrying capacity (kg)	1419 kg. load, over carrying capacity	Trips required
Household with wagon	$184 + 550 = 734$	1.93	2
Household with donkey	$184 + 150 = 334$	4.25	5
Household, humans only	$184 + 0 = 184$	7.71	8

Table 1  
Trips required to transport 12-months' grain supply (1419 kg)

Admittedly these calculations are based on a number of more or less reliable estimates and errors may have multiplied at each level of computation. However, the figures used have generally erred on the side of generosity, and even if not precise, serve to illustrate the scale of the problem. It is emphasised that the stored grain is just one element of the movable property. Other food stocks, tools, furniture, and structural timbers have not been considered.

The time required to accomplish these trips would increase with distance from the place of refuge, and could be consider-

<sup>50</sup> Roth (*supra* n.48) 211–212.

<sup>51</sup> S. Hodkinson, "Animal Husbandry in the Greek Polis," in C. R. Whittaker, ed., *Pastoral Economies in Classical Antiquity* (Cambridge 1988) 39–40. Modern assessments that holdings under 5 ha. could not be worked effectively with oxen are backed up by Hesiod's reference to small farmers without the animals (*Op.* 405).

able. Extra time should be allowed for loading and unloading and for unaccountable delays. Furthermore, in a general evacuation, the roads would be congested, at least near the entrance to the refuge. It is not unreasonable to suggest that, for those living at the periphery, a round trip would have taken the best part of two days. The northern edge of the Athenian plain, under Mt Parnes, is ten miles from the city, as the crow flies. The plight of those near the boundaries could, however, have been alleviated by flight to frontier posts, where these existed. These are often large enough to accommodate an influx of goods if not people, and the import of supplies would no doubt be viewed sympathetically by the garrison.<sup>52</sup> Thus a model of “centrifugal evacuation” can be postulated as running along side the more conventional idea of evacuation towards the centre.

*Evacuation of livestock*<sup>53</sup>

Livestock are conveniently self-transporting, but the animals must be fed regularly if they are not to deteriorate rapidly. Pasture within city walls would be negligible, so urban evacuation presupposes the import of fodder and forage. For the larger animals, at least, the logistics of bringing in enough food would have been considerable: the ancient ox required 6.8 kg. of hay and 11 kg. of mash per day (Cato *Agr.* 30), or a total of 534 kg. per animal per month. This would be a considerable burden during, for example, the 431–425 invasions of Attica, the longest of which was forty days. The logistics of feeding livestock shut up within city walls may not have been prohibitive, but given all the other logistical problems, different solutions must have been

<sup>52</sup> E.g. for those at the north of the Athenian plain, the forts at Phyle and Aphidna were only half as distant as Athens. Both are reasonably capacious. Phyle (dated to IV B.C.) has a circuit of 260 m., whilst Aphidna (dating unresolved) has a circuit of 300 m. See M. Munn, *The Defence of Attica* (Oxford 1993) 9–10.

<sup>53</sup> Livestock were often taken as booty: see Pritchett (*supra* n.42) 198–203.

sought.<sup>54</sup> One possibility is driving stock not to the city, but to extra-mural areas suitable for grazing, yet not easily accessible to the enemy. The Athenians did so at the outbreak of war in 431: “Their sheep and cattle they sent across to Euboea and the islands off the coast” (Thuc. 2.14). Agesilaus’ campaigns furnish further examples. In 390, the Corinthians evacuated their cattle firstly to Piraeum, and then to the Heraeum (Xen. *Hell.* 4.5.1–6.). The next year, the Acarnanians took similar steps: “all their cattle were driven into the interior so as to be out of reach of the army” (4.6.4–6). In both cases, the eventual capture of the cattle shows that extra-mural evacuation bore no guarantee of safety.

In summary, modern scholars speak more easily of evacuation than ancient farmers achieved it:<sup>55</sup> the massive logistical difficulties, even when the enemy were not able to appear or move suddenly, explain how evacuation could fail, or be only partially successful. Mnasippus’ troops, on the plunder of Corcyra, “got such a taste for luxurious living that they would drink no wine unless it had a fine bouquet” (Xen. *Hell.* 6.2.6.). In 431 the Thebans caught the Plataeans with “both men and property still out in the fields.” Thucydides explains that this was “since the attack had been made in peacetime and was quite unexpected” (2.5), but these circumstances can not have been unique. Even in ancient military theory, devastators were expected to become encumbered with booty, and thus vulnerable to counter-attacks (Aen. Tact. 16.1–16.).

<sup>54</sup> Aeneas Tacticus advises against the introduction of livestock (10.1): “One must also notify those citizens who own cattle or slaves to place them in safety among neighbours, since they cannot bring them into the city.”

<sup>55</sup> E.g. Hanson 51: “invaders would have to arrive right around mid- or late May, when the grain was just becoming combustible, but had not yet been harvested and stored behind strong walls.” Because of the logistical difficulties of evacuation, the window was perhaps not quite so narrow.

*Delay and harassment*

Time for evacuation would always have been short, as even when there was adequate warning, there would have been a reluctance to interrupt agricultural activity until the last possible moment.<sup>56</sup> Delaying operations would slow the enemy's progress into friendly territory, thus allowing evacuees to get in as much property as possible. Aeneas Tacticus describes both the selection of a force to fight the enemy on his approach (1.1–4) and the tactics they should employ (16.16–22). A third-century Athenian decree describes how, in the face of invasion, Kallias "marched his troops into the countryside and made every effort to protect the harvest of the grain so that as much grain as possible could be brought into the city."<sup>57</sup> The cavalry force the Peloponnesians defeated immediately before entering the plain of Athens in 431 should be seen in these terms (Thuc. 2.19), and whatever else Leonidas intended or achieved at Thermopylae, he gained the Greeks extra days for their evacuation.

Once a devastator had settled down to work, an active defender would hamper him with frequent sorties. Aeneas Tacticus (16.1–16) describes how this should be done, emphasising the need to allow the enemy to become involved with ravaging before striking. Dispersed across the landscape, encumbered with loot and quite possibly drunk, invaders would then be at their most vulnerable. This is perhaps a little optimistic, as it seems when compared with Thucydides' gritty picture of the Athenian sorties against Decelea (7.27):

As the cavalry rode out to Decelea every day to make attacks on the enemy or to patrol the country, the horses were lamed on the rough ground and by the continuous hard work to which they were put, or else were wounded by the enemy.

<sup>56</sup> E.g. the Euboeans threatened by Xerxes in 480 (Hdt. 8.20).

<sup>57</sup> T. L. Shear, *Kallias of Sphettos and the Revolt of Athens in 286 B.C.* (Princeton 1978) 5.

Sorties were tough and dangerous, but their threat would have hampered the invaders. They would be made reluctant to disperse fully, for optimum devastation (and of course foraging), and would have been obliged to divert troops from ravaging to security duties.<sup>58</sup>

Delay and evacuation were complementary, but because farmers and soldiers were one and the same this presented the community with a manpower dilemma: the more men delaying the enemy, the more time they could win, but the more men harvesting and evacuating, the quicker it would be done. Fieldworks like the Dema wall,<sup>59</sup> astride the primary western entrance to the Athenian plain, could help to solve this problem; a much smaller force than otherwise possible could fight a delaying action here, freeing up manpower to evacuate the countryside.

### III. The devastation of Attica in the Peloponnesian War

During the Peloponnesian War, Attica was devastated using both the land-based types of operation outlined above. She suffered five general invasions during 431–425, and then a fortified occupation based at Decelea during 413–404. From Thucydides to the present day, it has unanimously been agreed that the fort at Decelea caused more damage to Attica's rural economy than did the earlier invasions. However, scholars who disparage the effectiveness of devastation have gone so far as to maintain that the early invasions hardly interfered with agriculture at all.<sup>60</sup> It is my purpose in this final section to show

<sup>58</sup> The essence of Xenophon's (*Mag. eq.* 4.17, 7.7–10) tactics for cavalry operating against an invader implies this. His cavalry commander was to watch for any blunder by which the enemy might expose a small detachment, *e.g.* by foraging. Then he was to strike his isolated opponents suddenly, and to make off before hostile reinforcements could arrive.

<sup>59</sup> See Munn (*supra* n.52) *passim*.

<sup>60</sup> *E.g.* Hanson 152–153. According to Hanson, the only "severe" effect on the Athenians of the Archidamian invasions was the plague.



Date	Duration (days)	Minimum ration (days)	Grain required ( <i>medimnoi</i> )	Cost (talents)
431	30 (estim.)	20	75,000	37.5
430	—	—	—	—
429	40 (Thuc. 2.57)	30	110,000	56.3
428	30 (estim.)	20	75,000	37.5
427	30 (estim.)	20	75,000	37.5
426	—	—	—	—
425	15 (Thuc. 4.6)	5	18,750	9.38
Total:	145	95	353,750	177

Table 2  
Minimum cost of the Attic grain eaten by enemy

*Ration* assumes troops arriving with ten days' supply; *grain*, 2 *choinices* per man per day for a 60,000 man force (troops plus followers); *cost*, 3 drachmas per *medimnos*.

that the invasions of 431–425 did have significant economic consequences for Athens.

During the invasions Attic grain was not only destroyed, but also eaten by enemy troops. We can hardly do more than guess what proportion of Attica's annual grain production (itself an elusive quantity) was destroyed. However, since we know the size of the invasion forces and the duration of the invasions, we can calculate with some accuracy how much they must have eaten during their various stays. This figure will then represent a minimum figure for Athenian grain losses during each invasion. Based on the calculations above (233–235), Table 2 shows the scale of Peloponnesian foraging in Attica during the five general invasions. The production thus appropriated was not only lost

to the Athenians, but also used by the Peloponnesians (they ate it). So the net effect was that Athens subsidised the rationing of the Spartan and allied armies on the order of 37 1/2 talents in 431, over 40 talents annually in the years 429–7, and 9 1/2 talents in 425, for a total of 177 talents throughout the course of the Archidamian War. Whether or not this was a “severe” effect (see n.60) depends on how one defines severe, but it was certainly significant from an economic point of view. Thus the Archidamian invasions must be seen as a justifiable strategy in the context of economic warfare.<sup>61</sup>

The amount of grain not eaten, but purely destroyed, is much harder to quantify. The two pieces of evidence for the grain yield of ancient Attica<sup>62</sup> are an inscription that states the proportion of the harvest to be dedicated at Eleusis, and another which gives the amount which actually was in 329/8.<sup>63</sup> Assuming the proportion did not change, it can be calculated that the harvest for 329/8 came to 363,400 *medimnoi* of barley, and 39,112 of wheat, a total of just over 400,000 *medimnoi*. Ober (24) points out that because of the drought and crop failures that are thought to have occurred in 329/8, as well as under-contributions, this ought to be considered very much as a minimum figure. Even a harvest on this scale would have had a cash value of around 200 talents. It is not possible to discover with any accuracy how much of this might have been destroyed by devastators. However, as argued above, with the use of burning it was probably substantial, a contention supported by the fact that the Peloponnesian invaders are said to have left only whenever their supply situation dictated, *i.e.* when the remaining grain in the Athenian countryside was so sparse as to preclude further foraging. The loss of a half or even a quarter of

<sup>61</sup> And, on a smaller scale, the Athenian fleets devastating the Peloponnesians were also eating at enemy expense.

<sup>62</sup> As cited by Ober 23.

<sup>63</sup> IG I<sup>3</sup> 78 (late V) and II<sup>2</sup> 1672.263–299.

a harvest worth 200 talents (a minimum figure) would certainly have been very tangible to Athenians. Hanson has argued (177) that because the processes of ancient agriculture were labour-not capital-intensive, they could recover within a few seasons of the population returning to the land. This is doubtless true, but as shown above, recovery or no recovery, the substantial destruction of even one cereal harvest was a severe (by any definition) blow to the rural economy, of which agricultural processes were only a part.

Athens absorbed the damage of the Archidamian invasions, and indeed the Decelean occupation, by virtue of her enormous wealth, and her access to imports.<sup>64</sup> But Thucydides tells us this had been a surprise to contemporaries. The rapid collapse that they anticipated presumably speaks for the effect of ravaging on more typical communities:

at the beginning of the war some thought that, if the Peloponnesians invaded Attica, Athens might survive for a year, and while others put the figure at two or three years, no one imagined she could last for more than that (7.28).

Here Thucydides is apparently contradicting his own words from Book One, where he has had Archidamus warn his countrymen of exactly that likelihood (1.81):

Athens controls plenty of land outside Attica and can import what she wants by sea ... we must not bolster ourselves up with the false hope that if we devastate their land, the war will soon be over ... the Athenians have too much pride to become the slaves of their own land.

But Archidamus' speech has too much exact foresight to be genuine. Thucydides is not reporting what Archidamus said, but

<sup>64</sup> P. Harding, "Athenian Defensive Strategy in the Fourth Century," *Phoenix* 42 (1988) 61–71 (a response to Ober's *Fortress Attica*). P. Garnsey, *Famine and Food Supply in the Graeco-Roman World* (Cambridge 1988) 87–164, "Food Supply and Food Crisis in Athens, c.600–322 BC," concerns itself a good deal with Athenian dependence on imports.

rather using a speech to elucidate what, with the benefit of hindsight, was the central strategic problem for the Spartans. To realise this is to resolve the apparent contradiction.

So long as Athens had both wealth and access to supplies from the Black Sea region, she could weather the devastation of her immediately adjacent territory. This was graphically demonstrated to the Spartan king Agis during the Deceleian occupation. He was ravaging Attica, yet he could see with his own eyes the grain ships coming constantly into the Piraeus (Xen. *Hell.* 1.1.35). Lysander's victory at Aegospotami and seizure of the Bosphorus meant an end to Pontic grain supplies, and famine for Athens. Lysander well understood this, as is shown by his decision to send the captured Athenians home—he granted them safe passage there, and nowhere else (2.2.2)—thus swelling the number of hungry bellies in the city. The result was Athenian capitulation, revolt in the empire, and the humiliating destruction of the Long Walls. But that was 405. In 431, the naval balance had not allowed the Peloponnesians even to defend their own coastline, let alone win major sea-battles at the far end of the Aegean. At that time, as demonstrated above, the devastation of Attica allowed Sparta to apply such economic pressure as was possible. The Athenians did not starve, but only because they could buy grain; the attack on their crops became, effectively, an attack on their current account.

#### IV. Conclusion

It is time to rehabilitate the view of devastation as a formidable threat to the survival of victim cities. Gomme was right.<sup>65</sup> the grain harvest was worth fighting for, and if the defenders lost, they would seek terms. Cereals were not only the staple of the ancient diet, they were also highly vulnerable under the pre-

<sup>65</sup> Gomme (*supra* n.3) 10–12.

vailing conditions of Greek warfare, *i.e.* the summer campaign. Vines and trees were often hacked about, in sheer wantonness, no doubt, whilst vandalised farmhouses literally brought the insult home, but these violations need not figure too largely in any economic assessment. The mainstay of effective devastation was the attack on wheat and barley.

Athens' experience during the Peloponnesian War furnishes a good deal of useful evidence for the detail of ravaging, and especially its operational context. However, arguments based on Athens' ability to endure devastation can be misleading, since she was a city independent of her *chora* to a unique extent. For several years the Spartans and their allies in Attica ate forty or fifty talents worth of grain. Even if they were such congenial guests as not to damage a single stalk more, what other city than Athens could have borne it for so long? Xenophon's brief description of little Phlius' troubles seems a more representative account of the experience of the ravaged.<sup>66</sup>

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