The Price of the First Punic War: Carthaginian War Expenditures

Laura Valiani

The First Punic War’s outcome is typically explained by simplified logic: the Roman soldiers were merely better fighters than the Carthaginian mercenaries. Perhaps historians should not accept such a simplified history; conversely, perhaps they should seek to understand the multiple factors that must have contributed to the outcome of the war. I argue that this is the case. The expenses of conducting a war of this magnitude must be examined in order to understand the outcome of the First Punic War.

This kind of investigation typically falls under the umbrella of logistics. Unfortunately, though the ancients knew the value of logistics, none of the ancient sources actually wrote about them, and thus it is left to modern scholars to put together the pieces and figure out the logistics of ancient wars. With that in mind, in this paper, I examine the logistical costs of war activity during the First Punic War, focusing on evidence supplied by Polybius and Diodorus Siculus. However, this paper does not follow the typical path by investigating the Romans, but examines the expenditures required of Carthage to conduct this war, instead. The goal of this paper is to provide a broad idea of the expenses of the Carthaginians with respect to their army. I first consider issues of pay and rations for the parts of the army (the infantry, cavalry, and mahouts).¹ This means a principal focus on the various mercenary contingents hired by Carthage over the course of the war, the cost of their pay, their upkeep, and their equipment. I then look at other hidden but necessary costs, namely the overall expenditure on food and

¹ This paper will not delve into the expenses the Carthaginians incurred on account of the Navy, as it is entirely too large and intricate to cover along with other expenses.
equipment. In order to provide a full examination, the animals and their costs should be considered as well. However, the space allowed will not permit the investigation of the costs of animals, their food, and their upkeep.

Though evidence is scarce on the Carthaginian side, its investigation nevertheless provides valuable insight in determining the cause of Carthage’s tragic loss to Rome at the end of the First Punic War. I conclude that though it is not possible to know exactly how much Carthage spent on the First Punic War, it was enough to have an economic draining effect on the city.

**Manpower Costs**

Due to the fact that the Carthaginians did not have an actual army drawn from their citizens, a large part of the Carthaginian defense was made up of mercenary groups. These mercenaries were very diverse and consisted of Iberians, Celts, Balearic Islanders, Libyans, Phoenicians, Ligurians, and various Greek slaves (Diodorus 25.2.2). They also included the Numidian cavalry (Polybius 1.19.2). Polybius provides some indications that these groups, in addition to being ethnically distinguished (1.67.3), were also functionally differentiated in terms of the types of fighting they conducted. When he describes Xanthippus’ organization for the Battle of Tunis, he places the “most active mercenaries together with the cavalry in front of both wings (1.33.6-7), thus implying that some mercenaries were not active and served other purposes.

The infantry of the Carthaginian army was composed of Libyan and Iberian mercenaries (and probably the Greek slaves that Diodorus mentions). Libyans could also make up the cavalry as well (Polybius 3.33.15), as they were the largest group from the different contingents mentioned above (Polybius 1.67.7). The mercenaries from the

---

2 Though the Carthaginian Army consisted entirely of mercenaries, the Carthaginian Navy did not.
Balearic Islands were slingers - men who essentially hurled missiles into the enemy troops by means of a sling (Polybius 3.33.11). There were also various cavalry groups made up of Numidians, Libyans, and cavalrymen from Spain, as well as mahouts (from India or Numidia – see below) for the elephants (1.40.15). These cavalrymen differed in their abilities, which is why it is important to list them by their location of origin.

Pay for mercenaries likely varied depending on the particular job that the mercenaries held. These amounts can be inferred by examining the Hellenistic sources that recorded the payments supplied to Greek mercenaries and soldiers, which would have been contemporary and thus analogous to what Carthaginian mercenaries were paid. Typically, rates of pay for mercenaries ranged from three obols a day to two drachmai per day for a standard hoplite (infantryman); from four obols to five drachmai per day for cavalrymen; and from two or three obols to one drachma per day for a sailor. However, it is possible to get a little more specific as an inscription from Epidaurus in 302 BCE stipulates the fines to be paid by cities for failing to provide the levy of soldiers for which they were responsible. According to David Pritchett, it has been maintained that the fine represents ten times the pay of the soldiers in question. This allows the historian to reconstruct the pay of hoplites/infantry, cavalry, and sailors at this time period as two drachmai per day for the hoplite, five drachmai per day for the cavalry and one drachma per day for the sailors in Greece. Carthage probably offered its mercenaries payments that were comparable to these rates, particularly given the competition among different

---

3 These descriptions come from Polybius’ narration of the Second Punic War, but it seems logical that the same descriptions would hold true for the First Punic War as well.
5 W. Pritchett, *The Greek State at War*, 21. Though the daily wage for Athenian navy members in the classical period was a drachma a day.
states for mercenaries across the Mediterranean during the Hellenistic period. However, several fragments of papyrus dated 280-240 BCE reveal that Greek mercenary pay varied according to the political and economic climate. If the climate was good, the pay would be good. The pay would decrease if the political and economic climate was bad or uncertain. Indeed, Polybius reports that Carthage attempted to negotiate the amount of money owed to the mercenaries at the end of the First Punic War due to the “heavy taxation and general distress of Carthage.” This lends support to the notion that the rate that mercenaries were paid varied with the economic conditions of the state they were serving. Carthage’s economic condition at the time of the Mercenary Wars was so bad that Carthaginian leaders felt it necessary to attempt to rescind their previous agreement and renegotiate another one, a less economically devastating one (1.67.1).

According to David Pritchett, different types of mercenary pay have been mentioned in the Greek sources: misthos and sitos. Misthos was payment by wage or salary and was paid by the month; it represented the soldier’s pay for the entire month and included rations. Sitos, by comparison, was payment only by rations, and specifically of grain. The question of how the Carthaginians paid their mercenaries—whether they paid them a salary that included rations, whether they were given rations separately, or whether they were provided with grain—helps determine how much the Carthaginians really paid for their mercenaries. If they paid their mercenaries a salary that included rations, they would necessarily have paid the mercenaries more than if they had provided them with only grain or with ration money. Wartime makes food-costs go up. If Carthage had been responsible for providing for the mercenaries, they would have had to eat some

---

7 Ibid.
of those costs. In other words, providing all of the mercenaries’ food would have cost Carthage more than providing only ration money. Polybius’ use of the word *opsonion* does not really help to find an answer as *opsonion* can mean salary, but can also mean rations. Matthew Trundle states that *opson*, from which *opsonion* comes, was a rich food group that accompanies wine or grain. That Polybius used this word suggests that the money that the mercenaries received was meant to be spent on rations. In fact, supporting evidence can be found throughout Polybius’ narrative of the last battle and the complaints of the mercenaries during the Mercenary War. For example, when the Carthaginians heard that the Roman navy was stationed in Lilybaeum, they hastened to send supplies to their mercenaries so that they could be well-fed (1.60.2). Another example comes from earlier in the war during the siege of Lilybaeum (250 BCE) when the Carthaginians sent their Admiral Adherbal with a large number of ships carrying grain and money to the besieged Lilybaeum (Zonaras 8.15).

How, though, did the Carthaginians distribute this food that they brought? Pritchett suggests that there were three ways that Greek mercenaries obtained provisions: first, that they were provided rations in kind, when the soldiers’ initial supply (which they were required to bring) was exhausted and the needs of the expeditionary force could not be satisfied by foraging; second, that soldiers were advanced their money at the beginning of the month with which they purchased their food. When on campaign, the hegemon might provide a temporary or permanent market where soldiers could buy their own provisions; or third, that no payment was made and the army and navy would be

---

8 Matthew Trundle, *Greek Mercenaries: From the Late Archaic Period to Alexander*, 87.
expected to live off the land or by depredation. Though the last option was not unheard of in ancient Greece (based on what Polybius writes), it seems to have been unexpected, and in the few cases mentioned, often caused mercenaries to revolt or desert to the other side.

Evidence from right before the Mercenary War supports the theory that the Carthaginian mercenaries were supposed to be supplied with food, or at least with money to buy food. Polybius states that the Carthaginians provided “lavish supplies” that the mercenaries could buy “at any price they were willing to pay” during the time that they were waiting idly for the pay owed them after the First Punic War (1.68.5). Yet other evidence suggests that the Carthaginians must have provided the mercenaries with rations of grain as well. Polybius reveals that [the mercenaries] maintained that they ought to get the value of the rations of corn due to them for a considerable time at the highest price grain had stood at during the war (1.68.9). In other words, if they were not going to get the grain ration owed to them, then they should receive pay money in its place, at the inflated rate of the cost of grain during the war.

An important issue in estimating the overall costs of manpower for the army is thus the question of how much food was required for the mercenary contingents of the Carthaginian army. This question can be assessed first on the micro-scale level by estimating the food requirements for an individual soldier. Jonathan Roth extrapolated the daily caloric need for an ancient Roman soldier to be approximately 3000 calories. He based this assumption off of the U.S. Army standards for a soldier who is approximately 170 cm tall, of medium build, weighing 66kg, and 30 years old. This is because men in

---

9 Pritchett, 35-36
the Roman army would likely have been older, and men in the ancient world were, for the most part, shorter - somewhere between 5’4” and 5’7” tall.\(^\text{10}\) If the Carthaginian mercenaries were taller, approximately 5’9”,\(^\text{11}\) then, based on U.S. Army calculations, they would have needed approximately 3200 calories per day.\(^\text{12}\) These caloric needs would have varied depending on whether the men were on the move or stationary. They also would have been greater immediately preceding a battle, as even the ancients knew that the physical demands of marches and hand-to-hand combat were substantial and soldiers were said to fight less effectively having skipped a meal before battle.\(^\text{13}\)

Roth states that soldiers in the Roman army received approximately 1.75 -2 pounds of wheat per day (they did not receive barley because that was reserved for the animals).\(^\text{14}\) If approximately the same amount is assumed for Carthaginian soldiers, then each soldier would have required approximately 52.5 to 60 pounds of grain per month, though it could have been more. Yet the Roman military diet was known for being diverse. Frontinus notes that the Roman army “consumed foods of all kind” (2.5.14). Plutarch mentions the inclusion of lentils and salt in the Roman military diet when he is relating bad omens before M. Licinius Crassus’ defeat at Carrhae in 53 BCE, and Appian extols the value of a mixed diet when he reveals that living on grain alone, without wine, salt and oil, was detrimental to the health of Roman soldiers (App. *Hisp.* 9.54).


\(^{11}\) John Mackintosh, *The History of Civilization in Scotland Volume 1*, 44.

\(^{12}\) Roth, 12.

\(^{13}\) Onasander states that “soldiers who have eaten moderately, so as not to put too great a load into their stomachs, are more vigorous in battle, armies have often been overpowered for just this reason, their strength failing for lack of food.” Roth, 12.

\(^{14}\) Roth refers to the amount of wheat in Roman *sextarii* but provides the equivalent measurement of between 1.1 liters and 1.08 liters, by converting that to pounds, one comes to the sum of approximately 1.85 pounds per person. In order to simplify the math and to account for differences in the diet of cavalry and infantrymen, I have given the total for both 1.75 pounds and 2 pounds per day. Roth, 22.
Roman army was also provided with salt-pork as a non-grain portion of their ration. In sum, based on the previous sources, the Romans provided their soldiers with grain, salt pork, wine, salt, lentils, and likely vegetables for variety. It is probable that the mercenaries were responsible for the variety in their diet. Like the Romans they could not have lived on bread alone. Thus, they either gathered their extra food, bought it from the merchants who followed the army on campaign, or they were provided these rations from the Carthaginians themselves. Whether the Carthaginians provided these sorts of rations free of cost to their men can only be imagined, but, as mentioned above, after the war the Carthaginians provided them with “lavish provisions” that they could purchase (Polybius 1.68.5). Carthage also provided the men – as they were waiting on their pay – “a gold stater for pressing expenses” (Polybius 1.68.6). Yet the mercenaries were not happy with only this arrangement. Polybius provides evidence of a grain ration provided by the Carthaginians when he reveals that the mercenaries “maintained that they ought to get the value of the rations of corn due to them for a considerable time at the highest price corn had stood at during the war” (Polybius 1.68.9). The mercenaries were aware that the price of grain varied throughout the war. It must have dropped after the war, leading the mercenaries to request compensation in a total that was equivalent to what they could have gotten when they were owed. Thus, Carthage may have saved money by not providing grain to the soldiers during the war, but they were not going to get away with giving the mercenaries less than what they were owed. It was not the rations themselves that the mercenaries wanted, but the value of the rations. This would have meant a higher cost for Carthage.

---

15 Roth, 16.
Another major cost for Carthage that was entailed in the maintenance of the mercenaries and army was in supplying the army camp followers. Using evidence from Alexander the Great’s armies after he allowed his men to marry (Justin 12.4), Donald Engel has argued that there was at least one camp follower for every three soldiers.\textsuperscript{16} Polybius, when describing the period right before the Mercenary War, suggests that a similar situation may have applied to the Carthaginian army, including its mercenary branches:

The troops readily consented to leave the capital, but wished to leave their baggage there, as they had formerly done, thinking that they would be soon returning to be paid off. The Carthaginians, however, were afraid lest, longing to be with their wives or children after their recent protracted absence, they might in many cases refuse to leave Carthage, or, if they did, would come back again to their families, so that there would be no decrease of outrages in the city. In anticipation then of this, they compelled the men, much against their will and in a manner calculated to cause much offence, to take their baggage with them (1.66.9).

That the wives and children of the mercenaries were with them when they were forced to leave Carthage whilst waiting on their pay after the war suggests that they had likely been with them the entire time.

\textit{Equipment for War}

Along with food for the mercenaries (and their families), another public expense were the weapons needed by the mercenaries to conduct war. Polybius states that the Carthaginians spent a portion of their tribute and tax money on armaments.

The Carthaginians had ever been accustomed to depend for their private supplies on the produce of the country, [and] their public expenses for armaments and commissariat had been met by the revenue they derived from Libya (1.71.1).

\textsuperscript{16} Donald Engels, \textit{Alexander the Great and the Logistics of the Macedonian Army}, 14.
In this passage, Polybius does not specify whether the expenditure on armaments included actual weapons and armor for soldiers/mercenaries, and the evidence for Carthage’s approach to armature is mixed. One position is that the states that hired mercenaries to work for them provided their equipment. If this was the case, the expense for Carthage would have drastically increased. Another position, however, is that the broad diversity of mercenary groups hired by Carthage would have prevented them from adequately equipping all parts of the army and all mercenary contingents equally. A compromise between these two positions might be along the lines of what has been suggested by Lazenby: that at least part of the mercenaries were homogenized upon entering Carthaginian service. In this instance, Lazenby means that all the different infantrymen would have been provided with the same weapons and armor so that Carthage could easily equip them. However, this would have only been the case for the infantrymen, and not for the others, as it is known that the Numidian cavalrymen carried a light, round, bossless, leather shield that was slightly convex with a narrow rim. These shields certainly were not the same as those carried by the infantry. There is no evidence in the sources suggesting that the Carthaginians actually provided the armor and weapons for their mercenaries; in fact, there is evidence from the Second Punic War that suggests the opposite: Hannibal outfitted his Libyan troops “with the choicest of the arms captured in the last battle” (Polybius 3.114.1). The Spanish and the Celts were armed with what one would assume was their native armor:

The shields of the Spaniards and Celts were very similar, but their swords were entirely different, those of the Spaniards thrusting with as deadly

18 Gregory Daly, Cannae: The Experience of Battle in the Second Punic War (London: Routledge, 2002), 93.
effect as they cut, but the Gaulish sword being only able to slash and requiring a long sweep to do so. As they were drawn up in alternate companies, the Gauls naked and the Spaniards in short tunics bordered with purple, their national dress, they presented a strange and impressive appearance (Polybius 3.114.1).

Thus they could not have been outfitted in the same way as the Libyans.

It is not beyond imagination that Carthage would have been able to replace javelins or other weapons of that sort if necessary, and in that sense did provide arms to their men. It is also possible that the arms Carthage provided to its mercenaries consisted of a variety of materiel that would have been needed to support the battle and the men. For instance, the Roman army carried clothing, armor, edged weapons, missiles, tents, portable fortifications, cooking gear, medical supplies, writing materials, and much more with them into the field. Only a portion of these would technically be considered arms. If Carthage also took such items into the field, these sorts of items would also likely be funded by the armaments allowance. However, this still does not cover all the equipment costs.

A final but major category of equipment cost, beyond the weapons for the army (and the naval costs that are so extensive it is impossible to cover them in this paper), was the material for siege warfare. These would have consisted of catapults (and the stones which were thrown), siege towers, battering rams, ballistae, and scorpions. The number of these weapons can be estimated by the number of weapons found in 209 BCE when Scipio seized New Carthage. He confiscated 120 very large catapults, 281 smaller catapults, 23 large and 52 smaller ballistae, as well as large and small scorpions. Even

19 Roth, 3.
if cities during the First Punic War did not have as many weapons, the ones that they did have would have required material from which to construct them. These weapons were not only constructed from wood. They also were made from metal. For instance, the front of the siege engines were lined with iron plating to prevent them from burning. So, the cost for these weapons included the materials, pay for the men who built them, and pay for the men to repair them. The Roman army required 1600 smiths and craftsmen to maintain its equipment for battle. It is likely that the Carthaginian army required similar numbers. If this is the case, then the cost for Carthage to retain these men must have been considerable.

Conclusion

The purpose of this paper was not to give specifics about the amount of money that Carthage would have paid to conduct the First Punic War, but to provide an idea of the things on which Carthage would have had to spend money. The Carthaginians did not only have to provide ships and the men to go with them (a huge expense), but the other components of war that have been covered in this paper, as well. The cost of the pay of mercenaries, their upkeep, and their equipment in combination with the hidden but necessary costs, of the overall expenditure on food and equipment provides a background for understanding the war’s effect on Carthage. These financial expenditures would have, over the course of the war, caused a huge financial drain on the city of Carthage. In a brief twenty-three years, Carthage was transformed economically from wealthy to insolvent. This impoverished economic state must have played a part in Carthage’s tragic loss of the First Punic War.