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## THE ROMAN BOARDING-BRIDGE IN THE FIRST PUNIC WAR

A study of Roman tactics and strategy\*

### CHRISTA STEINBY

The purpose of this article is to challenge Polybius' idea that the Roman naval success in the First Punic War was based on the use of the boarding-bridge. Polybius says that one of the reasons why he wanted to tell the story of the First Punic War at some length is that he wants the readers to know how, when and for what reasons the Romans first took to the sea. The Romans are presented as novices in seafaring, fighting the leading naval power in the western Mediterranean, Carthage. Roman navy used the

<sup>\*</sup> Prof. Paavo Castrén read a draft of this article. I wish to thank him for his valuable comments. I wish to thank Keith Battarbee for correcting my English.

<sup>&</sup>lt;sup>1</sup> For a survey of the Roman navy in the First Punic War and the boarding-bridge see J.H. Thiel, Studies on the history of Roman sea-power in republican times, Amsterdam 1946; J.H. Thiel, A History of Roman sea-power before the Second Punic War, Amsterdam 1954; H.T. Wallinga, The boarding-bridge of the Romans, its construction and its function in the naval tactics of the First Punic War, Groningen 1957; on the construction of the boarding-bridge see also L. Poznanski, "Encore le corvus de la terre à la mer", Latomus 38 (1979) 652–661.

<sup>&</sup>lt;sup>2</sup> Polyb. 1,20,8.

<sup>&</sup>lt;sup>3</sup> Polyb. 1, passim. The ancient historians show little interest in the development of the Roman Republican navy. Rome was represented as a community of farmers. However, trade was also important from the beginning. See R.R. Holloway, The Archaeology of Early Rome and Latium, London 1994; T.J. Cornell, The Beginnings of Rome, London 1995. The growth of Roman power and influence can be traced in the changing terms of the Roman-Carthaginian treaties: see R.E. Mitchell, "Roman-Carthaginian treaties: 306 and 279/8 B.C.", Historia 20 (1971) 633–655; also B. Scardigli, I trattati Romano-Cartaginesi, Pisa 1991. The Roman navy was already deployed in the conquest of Italy and it was a logical step to continue to Sicily. The Romans thus had a long tradition in seafaring, and they must have had ships and constructors available. The silence about a pre-war Roman fleet and maritime ambitions may be due to the question of war guilt. The concept of *bellum iustum* was extremely important to the Romans. For Fabius Pictor it was a question of

corvus,  $\kappa \acute{o} \rho \alpha \xi$ , or boarding-bridge, to invade enemy ships. Polybius writes that when the Romans used this, a battle at sea became just like a fight on land.<sup>4</sup>

Thiel has proved the historicity of the device. Wallinga has studied the construction of the machine and we have a clear picture of how it was used.<sup>5</sup> However, many other questions are still open. Polybius mentions the boarding-bridge only twice, in Mylae 260 and in Ecnomus 256; thereafter there is no information about it. For example, we do not know when its use was discontinued. My predecessors have taken over Polybius' ideas. For example, in Thiel's writings all possible misfortunes and accidents are explained by the presumption that the Romans were novices in seafaring.<sup>6</sup> In consequence, the boarding-bridge has come to be seen as the key to the Roman success, and thus the question of how the Romans could abandon it has proved to be very difficult. It is generally assumed that its use was not limited to those two battles where Polybius mentions it. Thiel, for instance, writes that the *corvus* enabled the Romans to win the first five naval battles of the war (Mylae, Sulci, Tyndaris, Ecnomus, Hermaeum) in spite of the fact that they were unfamiliar with the sea. The first battle they fought after the boarding-bridge was abandoned was in Drepana in 249 and it ended in disaster. Wallinga thinks that the boarding-bridge could not be abandoned until the Romans had learned to build ships that could match the Carthaginian ships. In his opinion, this happened with the last fleet of the war, which was built in 243.8

The aim of this study is to re-examine Polybius' story and to explore the historical significance of the boarding-bridge. We must examine how

improving Rome's reputation and justifying the claim that Rome fought its wars to defend herself and her allies. If he had referred to the existence of the Roman navy at the beginning of the First Punic War, he would also have revealed Roman motives, maritime ambitions and war guilt.

<sup>&</sup>lt;sup>4</sup> Polyb. 1,23,6.

<sup>&</sup>lt;sup>5</sup> See Thiel 1946 (n. 1), 432ff. For a different view see W.W. Tarn, Hellenistic military and naval developments, Cambridge 1930, 149. On Wallinga's reconstruction and completion of Polybius' description, see Polyb. 1,22; Wallinga (n. 1), 69–70.

<sup>&</sup>lt;sup>6</sup> See Thiel 1954 (n. 1), passim. H.H. Scullard also assumes that the Romans had no tradition in seafaring: CAH  $VII^2$ , 2 (1989), 548.

<sup>7</sup> Thiel 1954 (n. 1), 128.

<sup>8</sup> Wallinga (n. 1), 88–90.

essential it was for the Roman success. Was it such a powerful and necessary device as Polybius claims? We can study this by comparing information from Mylae and Ecnomus with other battles where Polybius does not mention the boarding-bridge. We must also study other skills that mattered in war at sea: rowing skills, the ability of the commanders, and the knowledge of traditional tactics, as well as the general plan and conduct of the war. I am going to study why the boarding-bridges were introduced in the first place, what their function was in the navy's success and finally I will attempt to answer the question when and why they were abandoned.

I

Polybius records that the boarding-bridge was added to the ships as a help in the fighting, because the ships were ill-built and slow in their movements.<sup>10</sup> Why were the newly built ships so difficult to handle? According to the traditional explanation, this was because the Romans were beginners in seafaring. In his first book Polybius emphasizes all the difficulties the Romans had in creating a navy. He comments that the Romans did not have any previous experience from seafaring. The shipwrights were totally inexperienced in building quinqueremes, because such ships had never been in use in Italy before. He admits that the Romans did not lack resources, but says that they had never given thought to the sea. He tells how the Romans, once having started the project, boldly and without any experience engaged the Carthaginians, who had for generations undisputedly ruled the sea.11 When the Romans were crossing the strait for the first time, the Carthaginians attacked them. One of the Carthaginian ships ran aground and fell into the hands of the Romans. They used this ship as a model, and built their whole fleet on that basis. Polybius emphasizes the importance of the incident,

<sup>&</sup>lt;sup>9</sup> In previous studies his view has never been questioned.

<sup>10</sup> Polyb. 1,22.

<sup>11</sup> Polyb. 1,20,9–12. Nevertheless, many important details are missing. Polybius does not mention, for instance, where the ships were built, by whom, or where the timber came from; neither does he explain how the Romans recruited their crews or who trained them. Furthermore, we do not know where the ships departed from. This is peculiar, because otherwise we know that Polybius always had a keen interest for technical and tactical details.

asserting that had it not happened, the Romans would not have been able to carry out the project, since they did not have the necessary practical knowledge. 12

There are different opinions about this story.<sup>13</sup> In my opinion, it seems to be genuine; however, Polybius clearly exaggerates the importance of the wreck. Models must already have been available from Syracuse.<sup>14</sup> The Romans did not need the wreck to understand how to build a quinquereme, but it was of course useful to see exactly what kind of ships the enemy was using. It is a normal feature in warfare to carefully scrutinize the enemy's weapons.

In my opinion, the clumsiness of the first ships was a result of a very short building time. We do not know when the decision to build the fleet was taken. According to Pliny, however, the first Roman navy was sailing within 60 days after the timber was cut. 15 The sailing season in the ancient Mediterranean world was very limited 16 and thus the Romans had to rush. They had to use fresh timber that had not had time to dry out, 17 and it is plausible that this would make the ships difficult to handle. 18

<sup>12</sup> Polyb. 1,20,15–16.

<sup>13</sup> E.g. Thiel 1954 (n. 1), 174; Wallinga (n. 1), 50–51; H.D.L. Viereck, Die römische Flotte, Herford 1975, 170 and F. Meijer, A history of seafaring in the classical world, London 1986, 152, regard Polybius' story as credible, inasmuch that the Romans actually needed a model to copy from. However, according to F.W. Walbank, A historical commentary on Polybius, vol. I, Oxford 1957, 75–76, the incident seems to foreshadow the imitation of the quinquereme of Hannibal (Polyb. 1,47; 59,8; Zon. 8,15) taken at Lilybaeum in 250. Likewise P. Pédech, Polybe Histoires Livre I, 45–46, considers the story not convincing.

<sup>14</sup> Both new types of ships were invented near Italy. Dionysius I, ruler of Syracuse began to build quadriremes and quinqueremes in 399. The quinquereme was his own invention; the Carthaginians perhaps invented the quadrireme. Within half a century the ships were in all navies, both Greek and Phoenician. Later Dionysius introduced sixes in the Syracusan navy. See J.S. Morrison – R.T. Williams, Greek Oared Ships 900–322 B.C., Cambridge 1968, 249; L. Casson, Ships and Seamanship in the Ancient World, Princeton New Jersey 1971, 97–107.

<sup>15</sup> Plin. nat. 16,192.

<sup>16</sup> See Casson (n. 14), 270-271.

<sup>17</sup> The importance of seasoning the wood before use was well known in the ancient world. See R. Meiggs, Trees and timber in the ancient Mediterranean world, Oxford 1982, 349–350.

<sup>18</sup> Even Thiel points this out; however, he believes that the Romans, being landsmen, did

There is also the question about the model of the ships. Both Tarn and Thiel think that the boarding-bridge was a heavy colossus. <sup>19</sup> Thiel believes that the Roman ships were built more solidly than the Carthaginian ones on purpose and thus the unwieldiness was not just due to clumsiness, but there was also a conscious adaptation to Roman tactics. Scullard likewise believes that the Roman ships were built more heavy on purpose, because he thinks that it was easier to build ships than to gain the necessary seamanship to meet the manoeuvring and ramming tactics of the enemy. <sup>20</sup> However, Wallinga has proved that the boarding-bridge was not a heavy device at all. According to his calculations the boarding-bridge weighed only about one ton, and thus the stability of a quinquereme, with a displacement of about 250 m<sup>3</sup>, would not be upset by it. <sup>21</sup> Consequently it did not require a specially built ship to carry it.

From Polybius' description we can see that the boarding-bridges were constructed only once the navy had arrived in Sicily. The ships had been tested on the way and discovered to be heavy and clumsy. Something had to be done; the solution was the boarding-bridge. Because it was not a very heavy device, it could be fitted to a normal warship. It is quite probable that the ships were also taken on shore to dry out, a normal procedure that was done after every sailing trip – yet another detail that Polybius does not

not worry about such trifles (Thiel 1954 [n. 1], 172). There are other examples of a very short building time. In the Second Punic War in 205 Scipio's navy sailed on the 40th day after the timber had been felled (Plin. nat. 16,192). Because the ships had been built with green timber, he drew them up for winter to let them dry out (Liv. 29,1,14). In the Civil War the ships in the Roman navy were slow and heavy, as they had been made in a hurry from unseasoned timber and consequently lost speed; therefore the Romans used *manus ferrea* and boarded the enemy ships. (Caes. civ. 1,58) The first Roman navy in the First Punic War also belongs to this category. The fault cannot be in the shipbuilders, since it is generally agreed that the Romans got help from cities in Magna Graecia and Syracuse, see Meiggs (n. 17), 141; Thiel 1954 (n. 1), 46–47; 67; Meijer (n. 13), 152; Wallinga (n. 1), 50–57.

<sup>&</sup>lt;sup>19</sup> Tarn (n. 5), 149; Thiel 1946 (n. 1), 443–444. The weight of the boarding-bridge made Tarn reject the whole of Polybius' story as a myth. He believes that the Romans did not use a real boarding-bridge at all, but that they used only some kind of grapnels in the battles of Mylae and Ecnomus.

<sup>20</sup> Thiel 1954 (n. 1), 177; Scullard (n. 6), 549-550.

<sup>21</sup> Wallinga (n. 1), 78.

mention. Polybius does not say anything about the inventor of the boarding-bridge either, but it seems likely that the invention was made in Syracuse.<sup>22</sup>

П

The boarding-bridge was used for the first time at Mylae in 260 in the first big sea battle between Rome and Carthage. The Roman navy consisted of 100 quinqueremes and 20 triremes.<sup>23</sup> We have only Polybius' description of the battle. He tells that the Carthaginians attacked daringly, not giving much credit to their opponents; but when the ships collided with each other they were in every case held fast by the machines and the Roman crews boarded by means of the *corvus* and attacked them hand to hand on deck. The battle became just like a fight on land. Then the Carthaginians tried to sail around the enemy in order to strike from the side or the stern to avoid the machines. The boarding-bridges could be turned in every direction, however, and so those who approached were grappled. The Carthaginians suffered severe losses and finally escaped.<sup>24</sup>

It seems that the Carthaginians first tried to make a διέκπλους-attack. The Romans responded by grouping their ships in two lines. After that the Carthaginians tried to make a  $\pi$ ερίπλους-attack, but the Romans were able to repulse that too. Wallinga has proved that the boarding-bridge could only

<sup>22</sup> The city allied with Rome in 263 and thereafter the Romans could benefit from Syracusan know-how. It was important that Rome, and not Carthage, gained access to Syracusan technical skills. Dionysius I had fought four wars against Carthage and was also involved in developing warships. See n. 14. In the Second Punic War during the siege the city became famous for the machines that were used to protect the town; it is possible that Archimedes could have been involved in developing the boarding-bridge too.

<sup>&</sup>lt;sup>23</sup> Polyb. 1,20,9. According to Polybius, in later battles the Romans usually had a fleet of about 300 ships. However, there is great controversy about the figures. Some scholars are prepared to accept Polybius' figures as such, see G.K. Tipps, "The battle of Ecnomus", Historia 34 (1985) 432–465, while others consider them too high and have reduced them. See e.g. W.W. Tarn, "The Fleets of the first Punic war", JHS 27 (1907) 48–60; Thiel 1954 (n. 1), 83–96.

<sup>&</sup>lt;sup>24</sup> The Carthaginians lost 50 ships (Polyb. 1,23). The consul Gaius Duilius was awarded the first naval triumph in Rome's history and was honoured with a *columna rostrata*. Fast. tr.; Plin. nat. 34,20–21; Quint. inst. 1,7,12; CIL I<sup>2</sup> 25; S.B. Platner – T. Ashby, A Topographical dictionary of Ancient Rome, Oxford 1929, 134; L. Chioffi, in: LTUR I (1993) 309.

be revolved through about 90 degrees, not freely in all directions as Polybius claims.<sup>25</sup> This means that instead of staying still, the Romans had to move their ships during the battle. In the traditional tactics, which were intended to sink enemy ships, ships had to be moved and regrouped fast, and that is what the Romans did in this battle. Actually they did everything according to traditional tactics; the use of the boarding-bridge did not change that. The boarding-bridge was apparently something new which the Carthaginians were not used to. Nonetheless, it is striking that the Romans could do so well at the beginning of the war, when according to Polybius they still should have been learning how a navy works.

The Romans were not novices at all. This becomes even more evident when we look at the following battles. In the next two years the Romans operated in Sardinia and in Corsica. Both islands were strategically important, because the Carthaginians could attack the Italian coast from there, as they evidently had done in 262.<sup>26</sup> There is not much information about the expedition in 259.<sup>27</sup> However, the consul L. Cornelius Scipio was awarded a triumph *de Poenis et Sardinia Corsica*.<sup>28</sup> In 258 Roman and Carthaginian navies confronted in a battle by the Sardinian southwest coast near Sulci, and the consul C. Sulpicius Paterculus was awarded a triumph *de Poeneis et Sardeis*.<sup>29</sup> In 257 the Romans attacked Malta and the Lipari islands. There followed a sea battle at Tyndaris, which ended with a Carthaginian retreat.<sup>30</sup> Clearly the Romans were not fighting about Sicily alone; the war was about

<sup>25</sup> Wallinga (n. 1), 70.

<sup>26</sup> On attacks see Zon. 8,10. The Carthaginian attacks were probably the reason why the Romans started to build a large navy, not the capture of Agrigentum, as Polybius claims (Polyb. 1,20; Walbank [n. 13], 72–73; see Diod. Sic. 23,2; 23,1,4). Rome also had the *coloniae maritimae*, which were founded to protect the coast from pirates and other marauders. Livy lists ten *coloniae maritimae*: Antium, Ostia, Tarracina, Minturnae, Sinuessa, Sena Gallica, Castrum Novum, Pyrgi, Alsium and Fregenae. (Liv. 27,38,3–5; 36,3,4–6) Most of them were founded before the First Punic War, but Alsium and Fregenae not until 247 and 245. Both were needed to defend the coast from Carthaginian attacks during the war. Raids: Polyb. 1,56,2–3; Zon. 8,16; E.T. Salmon, "The Coloniae Maritimae", Athenaeum 41 (1963) 3–38.

<sup>27</sup> See Liv. per. 17; Zon. 8,11.

<sup>28</sup> Fast. tr. CIL I<sup>2</sup> 9; Eutrop. 2,20,3.

<sup>29</sup> Fast. tr. Cass. Dio 43,32; Polyb. 1,24.

<sup>30</sup> Polyb. 1,25.

gaining control over the western Mediterranean.<sup>31</sup> Sardinia, Corsica, Malta and the Lipari islands were all important, because they provided landing places between Italy and Africa.<sup>32</sup> This point became very clear in the Second Punic War, when Carthage tried in vain to obtain a naval base for its navy in order to sail from Africa to Italy to help Hannibal. The Carthaginians could not break Roman control over the sea and the landing places, and this was one of the reasons why they lost the war. Even in the First Punic War the Roman navy was operating over a wide area. This fits badly with the idea that the boarding-bridge was a defensive device against the superior Carthaginian navy.

The next big step the Romans took was to sail to Africa. Polybius comments that the Romans wanted to deflect the war to that country, so that the Carthaginians would find not only Sicily, but themselves and their own territory in danger.<sup>33</sup> The invasion of Africa started in 256. The Carthaginians tried to stop the Romans from crossing and gave battle off Ecnomus on the southwest coast of Sicily. According to Polybius the Romans had made preparations for an action at sea as well as for landing in the enemy's country, whereas the Carthaginians had mainly prepared for a maritime war. Both navies were divided into four sections. Three sections of the Roman navy formed a triangle, and the fourth group, consisting of horse-transports, was placed behind the triangle. The Carthaginians drew up three quarters of their navy in a single line, extending their right wing to the open sea for the purpose of encircling the enemy and with all their ships facing the Romans. The remaining quarter of their force formed the left wing of their whole line and reached shoreward at an angle with the rest.<sup>34</sup> However, the

<sup>&</sup>lt;sup>31</sup> This is evident, because soon after the First Punic War the Romans seized Sardinia. By the time the Second Punic War started they had gained control over a large part of the coasts and islands in the area.

<sup>32</sup> The ancient warships were coast bound. They could stay at sea only for a limited time, because there was very little room for food or water in the ships. The crew had to beach once or twice a day and consequently the navy could operate only in an area where it had free access to the coast and key bases. That largely determined the naval strategy in the Second Punic War. See B. Rankov, "The Second Punic War at sea" in: The Second Punic War, a reappraisal, ed. by T. Cornell et al., London 1996, 50–52.

<sup>33</sup> Polyb. 1,26,1–2. The Romans were probably following the plan that the Syracusans had used 50 years earlier in their attack on Africa, see Strab. 17,843; Solin. 27,8. Thiel 1954 (n. 1), 206; Wallinga (n. 1), 51.

<sup>34</sup> Polyb. 1,25-27. According to Polybius the Roman fleet consisted of 300 warships,

arrangement soon broke up and the fleets fought three separate battles. Part of the Carthaginian navy first withdrew, and part of the Roman navy followed. When the Carthaginians had drawn the first and second Roman squadrons far enough, they turned and attacked the Romans. According to Polybius the Carthaginians were superior in speed and could move around enemy's flank, as well as approaching easily and retiring rapidly. The Romans relied on their strength and grappling every ship with their boarding-bridges as soon as it approached. The Carthaginian right wing attacked the ships of the triarii, causing great distress. The third Roman squadron was trapped close to the shore by the Carthaginian left wing. However, the Carthaginians were afraid of the boarding-bridges and merely hedged the ships in and held them close to the land instead of charging. The consuls, having won the two other battles, came to help and surrounded the Carthaginian ships, capturing many of them, while some of them managed to escape.<sup>35</sup>

The boarding-bridge turned out to be very useful, especially in the battle near the shore. Nonetheless, it cannot have been decisive for the Roman victory. The arrangement of the ships for the battle demonstrates how confident the Romans were about winning the battle and sailing to Africa. To Dividing forces into different squadrons means that the squadrons have to work independently, and thus they must have good commanders. The Roman ships must have been fast too, since, after having first given chase to one part of the Carthaginian navy and then having beaten it, they hastened back to help in the two other engagements. According to Polybius, the Carthaginian ships were faster than the Roman. Again, one might think that it was because there was a basic difference in the quality of the ships. I would argue, however, that a more convincing explanation lies in the equipment the ships were carrying. The Roman ships were loaded with all the equipment necessary for the invasion of Africa. The Carthaginians only

while the Carthaginian fleet numbered 350 (Polyb. 1,25,7–9).

<sup>&</sup>lt;sup>35</sup> Polyb. 1,27–28. According to Polybius, the Romans lost 24 ships and the Carthaginians more than 30. None of the Roman ships was captured, while 64 Carthaginian ships were captured.

<sup>36</sup> Both Tarn and Thiel have rejected the triangle formation of the Roman navy as an impossible manoeuvre, see Tarn (n. 5), 151; Thiel 1954 (n. 1), 119. However, Tipps shows the benefits from using the wedge formation: The outer flank of each ship in the wedge was covered by the ship on its quarter. Any ship that was attacked was defended by its neighbour with a ram or boarding-bridge, see Tipps (n. 23), 450.

needed to prepare for the battle, and had obviously left on shore all heavy objects, in order to make their ships as light as possible. The whole idea of sailing to Africa was very bold. One would not expect that from a navy that according to Polybius had been operational only for a couple of years. Again it becomes more and more evident that the boarding-bridge was not invented merely to overcome the Carthaginian navy. It was an extra device in a well rehearsed navy that worked according to a great plan.<sup>37</sup>

After this battle, the Romans were able to sail to Africa without any difficulty. After a successful beginning, however, the Roman army was crushed by the combined forces of the Carthaginians and their Spartan mercenaries. The Roman navy was sent to rescue the remaining Roman troops. The Romans encountered the Carthaginian fleet at Hermaeum on the south coast of Sicily, but there are no details about this battle. The Romans won, continued to Aspis in Africa to collect the remaining troops, and returned to Sicily. Both consuls received a triumph and a *columna rostrata* was built on the Capitol. From the short report we cannot say whether the boarding-bridges were used or not. However, it is significant that here again the Carthaginians failed in their efforts to stop the Roman navy.

The Roman navy suffered heavy losses in two storms in 255 and 253. Thiel believes that in both cases the boarding-bridge would have made the ships more unstable and that consequently the Romans may have abandoned it.<sup>39</sup> In my opinion that was not the case, since as stated before, the boarding-bridge was not a heavy device at all<sup>40</sup>, but there were other reasons for these failures. When the Roman navy was returning from Africa after collecting their troops, it was caught by a storm near Camarina on the south coast of Sicily; both the Roman ships and those captured from the Carthaginians were

<sup>&</sup>lt;sup>37</sup> It is also interesting to see that in this battle Polybius states that the Romans had two six-banked galleys, on which the Roman consuls travelled. At Mylae the Carthaginians had used a seven-banked galley, which had belonged to Pyrrhus (Polyb. 1,23,4). One of the problems Polybius refers to in shipbuilding was that the Romans did not know how to build a quinquereme or a quadrireme. It is peculiar that only four years later they were already using sixes. Unfortunately there is no information about their origin.

<sup>&</sup>lt;sup>38</sup> Polyb. 1,36,5–12. The Roman navy sailed with 350 ships and captured 114 Punic ships with their crews. Diod. Sic. 23,18; fast.tr. On the *Columna rostrata M. Aemilii Paulli* see Liv. 42,20,1; Platner – Ashby (n. 24), 134; D. Palombi, in: LTUR I (1993) 307–308.

<sup>&</sup>lt;sup>39</sup> Thiel 1954 (n. 1), 274.

<sup>40</sup> See n. 21.

damaged. Polybius blames ill-fortune, but mainly the commanders, claiming that the commanders paid no attention to the captains, who tried to warn them from sailing into the dangerous area. He criticizes them for lacking



Sicily during the First Punic War

judgement.<sup>41</sup> Thiel accepts Polybius' accusations and thinks that here we have yet another proof of how incompetent the Romans were at sea.<sup>42</sup> However, there is no reason to blame the Romans. They simply had no choice in the route, because Lilybaeum, Drepana and Panormus were still under Carthaginian rule.<sup>43</sup> Despite the losses, the consuls were still awarded a triumph for the victory at Hermaeum; apparently the tragedy was regarded as due to natural causes rather than bad seamanship.<sup>44</sup> In 253 the Roman navy was again caught by storm and lost a large number of ships; yet, despite these losses the consul C. Sempronius Blaesus was awarded a triumph.<sup>45</sup>

<sup>41</sup> Polyb. 1,37.

<sup>42</sup> Thiel 1946 (n. 1), 444; Viereck (n. 13), 175; Scullard (n. 6), 557.

<sup>43</sup> Walbank (n. 13), 96.

<sup>&</sup>lt;sup>44</sup> Scullard (n. 6), 557. Consequently the Romans constructed 220 ships in the winter 255/254 (Polyb. 1,38).

<sup>&</sup>lt;sup>45</sup> The navy had been ravaging the African coast, cf. Polyb. 1,39; Diod. Sic. 23,19; Eutrop. 2,23; Oros. 4,9,10; Fast. tr.

The war continued on land in Sicily. However, since the Romans were making no significant progress<sup>46</sup>, they once again decided to build new ships.<sup>47</sup> The Carthaginians had only two naval bases left in Sicily, Lilybaeum and Drepana. In 250 the Romans started to siege Lilybaeum. The navy anchored off Lilybaeum, and was joined by the land forces. According to Polybius the Romans thought that if they could get possession of the city, then it would be easy to transfer the war to Africa.<sup>48</sup> Nevertheless, the naval blockade was not a success. The Carthaginians were able to sail in and out from the harbour without the Romans being able to stop them.<sup>49</sup> The Romans tried to fill up the mouth of the harbour; after several unsuccessful attempts they finally caught a Carthaginian quadrireme that came at night and ran aground. The Romans captured and manned the ship. Later they used the new ship to stop Hannibal the Rhodian. His ship too was added to the Roman navy and thus, claims Polybius, the Romans were able to stop all blockade-running.<sup>50</sup> Polybius probably exaggerates here, since acquiring two fast ships does not mean that the Romans could stop all traffic to the city.<sup>51</sup>

There are various explanations as to why the Romans could not blockade the harbour.<sup>52</sup> In my opinion the question about the boarding-bridge or the quality of the ships is secondary in this case. From Polybius' description we can see that the Romans obviously did not know the safe

<sup>46</sup> According to Polybius the Romans were afraid of the Carthaginian elephants. The Romans had bad experiences with the animals in the African expedition (Polyb. 1,33–35) and thus they avoided engaging in battle with the Carthaginians. Could the elephants be seen as the Carthaginian secret weapon in the same way as the Roman boarding-bridge?

<sup>47</sup> The consuls built 50 new ships (Polyb. 1,39).

<sup>48</sup> Polyb. 1,41.

<sup>49</sup> The Carthaginians were able to bring in new soldiers and move out the horses (Polyb. 1,44; 46; Diod. Sic. 24,1).

<sup>&</sup>lt;sup>50</sup> He had worked as messenger between Lilybaeum and Carthage (Polyb. 1,46–47).

<sup>51</sup> Thiel 1954 (n. 1), 271.

<sup>52</sup> Thiel sees a huge difference in the quality of the ships. The Carthaginian ships were light and well built, while the Roman ships were heavy and difficult to handle (Thiel 1954 [n. 1], 268). He also concedes, however, that ancient naval blockades were not watertight (Thiel 1954 [n. 1], 162–163). Wallinga finds it difficult to understand why the quality of the Roman ships in 250 still could be so poor when a large part of the navy had twice been renewed; he thinks that the explanation could be that since the boarding-bridge had proved to be such a successful weapon, there was no need to make any improvements in the navy: Wallinga (n. 1), 89–90.

route into the city's harbour. It was shoaly water and the passage to the harbour required great skill and practice. There was a surge and strong current, which made it very difficult for the Romans to fill up the mouth of the harbour. The Romans also feared to be carried into the harbour by the force of the wind.<sup>53</sup> If they had tried to sail in they probably would have run aground on one of the underwater sandbanks, or they could have been trapped, as happened in Drepana in the following year. Moreover, Rome did not have a strong position in the blockade. Some of the mariners had been sent to fight on land and having suffered serious losses during the winter the navy was not fully operational until reinforcements arrived.<sup>54</sup>

Next the Romans tried to attack Drepana. The operation ended in one of the biggest disasters in the war. Thiel believes that there was the problem that the Romans were fighting without boarding-bridges, which he believes had been discontinued after the disasters of 255 and 253, while the type of the ship remained unchanged.<sup>55</sup> This interpretation does not seem to me to be convincing. It is quite possible that the boarding-bridges were still in use; however, in this battle the Romans faced such difficulties that not even the boarding-bridges could have saved them. The Roman tactics were based on a surprise attack, which, however failed. When the Carthaginians saw the first Roman ships sailing into Drepana, the Carthaginian navy sailed out from harbour on the opposite side to that from which the Romans were entering.<sup>56</sup> Polybius writes that total chaos followed in the harbour. The Roman commander ordered the whole fleet to sail out again. The ships collided with each other and in the great confusion the blades of the oars were broken. The Romans arranged the ships quickly in line and drew them up close to the shore with their prows to the enemy. The Carthaginians attacked them from the sea. There was nowhere the Romans could have escaped, because they had their back to the shore. As a result some of the ships ran aground while others ran ashore. The Roman commander fled with about 30 ships nearest to him and the rest of the ships were captured by the Carthaginians.<sup>57</sup>

<sup>53</sup> Polyb. 1,42,7; 1,44; 47.

<sup>&</sup>lt;sup>54</sup> Diod. Sic. 24,1,6; Polyb. 1,49.

<sup>&</sup>lt;sup>55</sup> This he takes as evident, because here the Carthaginians did not hesitate to attack as they had done in Ecnomus: Thiel 1954 (n. 1), 274.

<sup>56</sup> Polyb. 1,49.

<sup>57</sup> Polyb. 1,50-51. The consul Publius Claudius Pulcher was brought to trial and sentenced

The idea to attack Drepana was good, because we know that soon after the battle the Carthaginians received a reinforcement of 70 ships.<sup>58</sup> It is evident that the Roman commander decided to attack before the Carthaginians could have charged with an overwhelming force.<sup>59</sup> However, the Romans had many difficulties. There was lack of mariners.<sup>60</sup> Since the Romans did not even have enough rowers, they probably did not either have the soldiers to operate the boarding-bridges. In the harbour the Roman ships had collided, breaking their oars.<sup>61</sup> The Romans had damaged their own ships even without confronting the enemy. Actually, this is one of the rare occasions where we can say that the Romans acted like novices; otherwise they had been using their navy very professionally. Even here the Romans could have achieved a significant victory if only the plan had worked.

Later in the same year most of the Roman navy was destroyed in a storm on the southwest coast of Sicily;<sup>62</sup> the Romans now had only about 20 ships left in Lilybaeum.<sup>63</sup> The Carthaginians were still holding Drepana and Lilybaeum and in theory they were also ruling the sea.<sup>64</sup> Since they were faced with quashing a rebellion among their subjects in Africa at the same time, however, they failed to take advantage of the opportunity to move against the Romans.<sup>65</sup> The Carthaginians obviously did not have a plan in

to a heavy fine (Polyb. 1,52). See Walbank (n.13), 115 on the trial. The process may have been prompted by Claudius' political enemies: Scullard (n. 6), 562.

<sup>&</sup>lt;sup>58</sup> Polyb. 1,53.

<sup>59</sup> Tarn (n. 23), 54-55.

<sup>60</sup> The navy was supplied with rowers from the army (Polyb. 1,49,5). The ships must still have been undermanned, and some of the rowers must have been untrained, cf. Thiel 1954 (n. 1), 273.

<sup>61</sup> A ship without oars was quite defenceless in a battle, since tactics were based on high mobility of the ships. Ancient warships were often equipped with catheads, epotides, that were used to break the oars of the enemy ship, see Wallinga (n. 1), 33.

<sup>62</sup> Polyb. 1,52–54; Diod. Sic. 24,1. According to Diodorus, before the storm broke out there was a battle in which the Romans suffered heavy losses. However, Polybius omits the losses and states that the Romans succeeded in avoiding a battle. This makes Diodorus' story more credible, argues Thiel 1954 (n. 1), 285 and I agree.

<sup>63</sup> Tarn (n. 23), 55.

<sup>64</sup> It has been estimated that the Carthaginians had since 249 about 170 ships. (Tarn [n. 23], 56–57; Thiel 1954 [n. 1], 311). The Carthaginians also had 60–70 captured ships worth refitting. Tarn (n. 23), 56.

<sup>65</sup> See Scullard (n. 6), 563. However, the Carthaginian navy attacked the Italian coast in 248

their warfare as the Romans did. In the previous operations the Carthaginians had mainly concentrated on stopping the Romans, yet when Rome was practically without a navy they did not take the initiative.

The war continued on land in Sicily, but there were no decisive results and thus the Romans decided to build a new fleet, which was already the fifth in the war. This is a very important development, because in previous studies this fleet was considered to have been of a totally new type. During the siege of Lilybaeum the Romans had captured the ship that had belonged to Hannibal the Rhodian,<sup>66</sup> and according to Polybius the ship was used as a model when the Romans built the new fleet.<sup>67</sup> Both Thiel and Wallinga accept the story as genuine.<sup>68</sup> However, in my opinion, it is questionable, whether anything special happened in shipbuilding at that point. The story about the captured boat of Hannibal the Rhodian I accept as probably genuine, since the Romans will have wanted to examine what was the newest invention in the enemy's shipbuilding. Still, the Romans needed it only to check the situation, not to use it as a model for their new fleet.

The Roman navy sailed to Sicily in 242 and started to besiege Drepana again. When the Carthaginians heard about it they also furnished a navy.<sup>69</sup> According to Polybius, the Carthaginian ships were filled with supplies that were intended for the troops at Mont Eryx. The Carthaginians also planned to take on board as mariners the best qualified mercenaries. At the island of Aegusa the Romans planned to stop the Carthaginians. There was a strong wind and the consul hesitated for a moment but decided to engage in battle before the Carthaginians could join forces with their army. The battle was

and 247 (Zon. 8,16; Oros. 4,10). As a consequence new *coloniae maritimae* were founded to protect the coast, in Alsium in 247 and in Fregenae in 245 (Vell.1,14,8).

<sup>66</sup> Polyb. 1,47.

<sup>67</sup> The fleet consisted of 200 quinqueremes (Polyb. 1,59).

<sup>68</sup> Thiel thinks that there was a revolution in Roman shipbuilding. With a totally new kind of ship, the Romans could succeed at sea even without the boarding-bridge. Wallinga believes that it was now that the Romans discontinued the boarding-bridge. The Romans could finally build ships that could match the Carthaginian ships. There was also another reason for abandoning the boarding-bridge: it could be used only in good weather, because when two ships were connected the boarding-bridge could be ruinous to both ships in heavy seas, see Thiel 1954 (n. 1), 304–305; Wallinga (n. 1), 89–90.

<sup>69</sup> Polyb. 1,60.

soon over and the Carthaginians were defeated. Polybius does not tell any details. Diodorus briefly relates that the battle was fierce.<sup>70</sup>

Evidently the Carthaginian navy did not arrive in Sicily until the following spring, a year after the arrival of the Roman navy.<sup>71</sup> This, and the fact that the Carthaginian ships were loaded with supplies, shows that there was a lack of marines.<sup>72</sup> Arriving late, being heavily loaded with supplies and undermanned, the Carthaginian navy was in no shape to win a battle and thus it was no great achievement for the Romans to defeat it. If the maintaining of a navy was difficult for the Romans, it was so for the Carthaginians too. At the last battle the Carthaginian navy was in a pitiful condition and it is difficult to see why the Romans would have to put extra effort into building a totally new type of fleet to match a weakened enemy.

### Ш

In conclusion, it can be stated that the Roman navy did very well, from the first battle to the last. The Romans had a clear plan in their warfare. The war was started in Sicily but there were also battles in Sardinia, Corsica, Malta and the Lipari islands, which were all tactically important in terms of controlling the western Mediterranean, and then in Africa. The Romans first tried to move the war there in 256. If the Roman army had been strong enough to stay there, the war could have been over in a short period of time. It was a great plan, which the Syracusans had already tried 50 years earlier, and which finally became successful at the end of the Second Punic War. The Romans obviously had strong ambitions that were not limited to the conquest of Sicily.

The Romans had many opportunities where they could have ended the war, either in Africa or by conquering the two remaining bases in Sicily,

<sup>70</sup> According to Polybius 50 Carthaginian ships were sunk, 70 captured and the rest of the fleet raised masts and fled. According to Diodorus the Carthaginians lost 117 ships, including 20 with crews. The Romans lost 80 ships, of which 50 ships were partly destroyed and 30 totally. The rest of the Carthaginian ships fled. (Polyb. 1,61; Diod. Sic. 24,11.) The consul C. Lutatius Catulus was awarded a triumph *de Poeneis ex Sicilia navalem* (Fast. tr.).

<sup>71</sup> Thiel 1954 (n. 1), 307; Walbank (n. 13), 124–125.

<sup>72</sup> Thiel 1954 (n. 1), 307.

Lilybaeum and Drepana. On the other hand the Carthaginians did not have any such opportunities, since they were always one step behind the Romans. If we exclude the failures in Lilybaeum and Drepana and the battle that the Carthaginians won on the south coast of Sicily in 249, the Roman navy was practically invincible. It is strange that the Carthaginians could not stop the Romans from sailing between Africa and Sicily. The Romans won all the battles and on many occasions the Carthaginians did not even attempt to stop them. The Carthaginian naval power turned out to be very limited and vulnerable. It has been estimated that totally the Romans lost about 600 ships and the Carthaginians about 450. The Carthaginian losses came in battles, however, whereas the Romans lost 3/4 of their ships in storms.<sup>73</sup> These figures cannot be interpreted as proof that the Romans were novices in seafaring; they simply show that the Romans after all had more resources for building and maintaining a fleet. The Carthaginians knew the coast of Sicily better and thus could avoid getting caught by a storm, but in battle the Romans were superior.

In many occasions Polybius writes about a difference in speed between the two navies, but it is difficult to believe that the Roman ships would consistently have been of worse quality than the Carthaginians. It is possible that Polybius has misinterpreted the situation. For instance, in Ecnomus the difference in speed could simply be explained by the fact that the Roman ships were heavily loaded with all the equipment needed in Africa, whereas the Carthaginians were prepared for the battle only and had made their ships as light as possible. It is therefore all the more impressive that the Romans still won the battle. In the last battle, in 241, the roles were reversed: the Roman ships were made as light as possible, whereas the Carthaginian ships were heavily loaded with equipment and totally unprepared for battle. The Romans suffered failures in Lilybaeum and Drepana, but in these two cases the quality of the ships or the use or non-use of the boarding-bridge was not decisive, because the task was difficult, for other reasons.

Having established that the Roman navy was extremely successful, we must now ask what role the boarding-bridge played in this success. Basically there is no difference between those battles, i.e. Mylae and Ecnomus, where according to Polybius the device was used, and those battles where he does not mention it. Even in the first battles the Romans followed traditional

<sup>73</sup> Tarn (n. 23), 59; Thiel 1954 (n. 1), 94.

tactics, which required good commanders and good rowers. The Roman ships were mobile, and were not designed for turtle-like defence.

We do not know what kind of development took place in Roman shipbuilding during the war. There are two stories about copying a Carthaginian ship. As a part of normal warfare it was useful to see what kind of equipment the enemy was using. There is no need to interpret the stories to imply that the Romans copied everything from the basics because they did not have the required know-how. The Romans could get help from Syracuse and probably simply wanted to check out the latest development in Punic shipbuilding. There is no information about the Carthaginian counter-reaction to the boarding-bridges. They must have invented something in 20 years; for instance they could have made the gunwales of the ships higher. If the Carthaginians did find something new, did that make the Roman boarding-bridges useless or less effective? We do not know. However, later the Romans used the *manus ferrea*, which did not have the same disadvantages that the boarding-bridge had.

On the basis of all this information, we can draw the conclusion that the boarding-bridge cannot have been as remarkable and essential a tool as Polybius claims. The first fleet was built in a hurry out of unseasoned timber and consequently the ships were heavy. The boarding-bridge was a convenient solution for the problem at that moment. It was found to be useful and the Romans continued to use it. The Roman tactics and strategy never depended on it, however: it was simply an extra device in a well functioning navy with a good general plan and great ambitions. Thus the question about when and why the boarding-bridge was abandoned becomes less important. Could the Romans have succeeded without it in the beginning? No doubt the device eased the situation at first. However it alone was not the key to the Roman victory nor did it cause the failures in storms or sieges; it was merely one extra device in a fleet that already fulfilled all the requirements of a good navy.