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 from p. 355 } → To John, who, by personal example, has made me
 a better scholar, teacher and mentor.

RECONSIDERING THE BATTLE OF ACTIUM

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The Battle of Actium ranks among history's most important sea battles because of the developments set in motion by its outcome. For example, it marks the birth of the Augustan Principate and was recognized by many as the defining moment—the final victory if you will—in the rise of Augustus Caesar to sole power.¹ It also marked the decisive reaffirmation of Rome's control over the Eastern Mediterranean and stands as the last great naval conflict of antiquity.² In spite of these significant features, however, no one really knows for certain what happened on 2 September 31 BC, the day the final struggle took place at Actium. Almost everything lacks certainty, from the battle strategy of the vanquished to the course and character of the battle itself. This is not because we lack ancient sources to tell us what happened. It is rather because the information they provide is not always convincing.

The two main narratives, written by Plutarch and Dio Cassius long after the event, are largely derived from sources favorable to the victors.³ Four other narratives describe the action in varying detail. The most complete one, by Zonaras, derives closely from Dio and so offers nothing new.⁴ The other three (by Velleius Paterculus, Annianus Florus, and Orosius) provide a few details like fleet numbers that may once have been in Livy's lost narrative but, in general, they lack the precision one needs to reconstruct a battle and are patently grounded in partisan propaganda.⁵ Contemporary poetic

¹ Cf. Tac., *Historiae* 1.1.1; Jos., *Antiquitates Judaicae* 15.109; and especially Dio Cass. 51.1.2.

² On the 'Actian era' (the age that commenced with the victory) in the Eastern Mediterranean, see Reinhold (1988) 225–6. Casson ((1971) 141) sums up the relevance of the battle in naval terms: 'Actium wrote finis to the formal sea battle for over 300 years'.

³ Plut., *Antonius* 61–68; Dio Cass. 50.11.1–51.1.5; on Dio's sources, see Reinhold (1988) 6–9.

⁴ Zonaras 10.29–30; cf. Cary (1914) 1.xxii.

⁵ Vell. 2.84–85; Florus 2.21; Orosius 6.19.5–12.

references to the battle are few and are restricted to brief negative allusions to Cleopatra, vague movements of troops or ships, or grandiose scenes with divine portents and moralistic prophesy.⁶ In general, all these accounts suffer from the intense propaganda of the period which has led to the inclusion of exaggerated rumor and hyperbole and, for this reason, our understanding has not advanced significantly beyond the opposing reconstructions developed 60 to 100 years ago by J. Kromayer and W.W. Tarn.⁷

Although one might question the need to reconsider such a battle, new clues unavailable to previous scholars imply that the battle involved fierce fighting and that many of Antony's ships were indeed destroyed by fire. Preserved near Actium in the ruins of a contemporary war memorial, this evidence reestablishes as credible two basic elements of the battle narratives that were rejected by Tarn and others as unreliable.⁸ The new evidence also reveals the offensive power of Antony's largest ships and invites speculation about the strategy he employed in the final battle.

The memorial can be found just north of modern-day Preveza at the site of Octavian's personal camp (fig. 17). Although it now lies in ruins, one can make out the large rectangular podium where Octavian displayed a selection of warship rams along with other paraphernalia taken from the enemy (fig. 18). Large inscription blocks scattered about the site tell us that during his 5th consulship (29 BC) he consecrated both the camp and naval *spolia* to Neptune and Mars in thanks for the victory 'in the war which he waged on behalf of the Republic in this region'.⁹ Today, the rams are long gone, but one can still see 23 elaborate cuttings or sockets that once held the weapons against the podium's southern face. Given the spacing of the sockets, the width of the podium and the nature of two ruinous gaps in the southern wall, it is clear that the original display included 33 to 35 weapons.¹⁰ This number is suspiciously close to what we might expect from a tithe or 10% dedication (i.e., 30 weapons) from

the 300 warships Octavian claimed to have captured during the war (Plut., *Antonius* 68.1). We might account for the three to five extra weapons in the display (representing an extra 30–50 warships captured) by the fact that Octavian specifically excluded warships smaller than triremes when calculating a similar total for the text of his *Res Gestae* (3.4). Unless the numbers are purely coincidental, we can reasonably conclude that Octavian captured between 330 and 350 warships during the course of the summer-long war and that 11–14% (depending on the dedication's original total) were from warships smaller than 'threes'.¹¹

We can be fairly certain that Octavian would have counted every ram from seaworthy warships that came into his possession during the summer. As for damaged and destroyed vessels, their salvage was routinely carried out by the victor following both major and minor naval engagements. Rams received special attention because of the value of the bronze from which they were made.¹² And because of a warship's tendency to float at the sea's surface once it was holed, rams normally remained available for recovery.¹³ Beyond the weight of metal in these weapons, the rams also possessed a potent symbolic value that Octavian fully utilized in the years following the battle. Naval spoils—and rams figure prominently among these—appear repeatedly in the representational art of the period, configured as trophy dedications or as simple decorative elements, alluding to the universal power of the *princeps* on land and sea.¹⁴ As for the Actian rams, Octavian paraded them through Rome during the second day of his triple triumph (Dio 51.21.7; Prop. 2.1) and then used them to decorate *rostra* at the eastern and western ends of the *Forum Romanum*.¹⁵ For Octavian, the rams from Antony's warships were valuable in more ways than one.

¹¹ Cf. Murray (1989) 137–41. Strabo (7.7.6) reveals that Octavian captured vessels smaller than triremes and included them in his dedications.

¹² Although we do not know the price of bronze at the time of this battle, some three centuries earlier, the value of bronze in the Athlit ram was worth about 560 days of skilled labor. cf. Murray (1989) 127 n. 16.

¹³ Cf. Casson (1991) 82. At Athens, trierarchs were required to return rams to the shipyards from vessels that had been destroyed in storms; cf. Murray (1985) 147–8. The trierarchs were obviously expected to stay at the scene of the wreck or return later to recover what was the most expensive piece of the ship's equipment.

¹⁴ Cf. Holscher (1984) and (1985); Zanker (1988) 79–85. We should remember that Augustus counted more than 600 warships as captured during his career (*Res Gestae* 3.4).

¹⁵ Murray (1989) 121–4.

⁶ Hor., *Epodi* 9; *Carmina* 1.37; Prop. 3.11 and 4.6; Verg., *Aeneid* 8.671–713. For a recent attempt to interpret this literature, see Guralv (1995).

⁷ For an assessment of the period's pervasive propaganda, see Reinhold (1988) 222–3. Cf. Reinhold (1988) 115.

⁸ What was currently known of this monument up to 1987 has been published in Murray (1989) (see pp. 62–77 for the inscription). Since 1995, the site has undergone a systematic program of study and excavation by the 12th Ephorate of Prehistoric and Classical Antiquities. For a preliminary report on this work, see Zachos (2001).

¹⁰ Murray (1989) 55–6.

Beyond the total number of captured ships, Octavian's campsite memorial preserves other important details locked into the shapes and dimensions of each socket. In order to appreciate these details, one must first understand the classes or vessel sizes from which the weapons were taken. Evidence from known rostral monuments and from a half-ton warship ram recovered near Haifa in 1980 (the Athlit ram) make it certain that Octavian chose to display the largest weapons that fell into his hands. Briefly stated, the evidence is as follows: (1) Roman engineers often suspended rams from vessels as large as triremes on their rostral monuments; (2) the Athlit ram (at 465 kg.) is too heavy to be suspended in such a manner and, thus, comes from a class larger than a 'three'; and (3) the half-ton Athlit ram is dwarfed by the weapons once mounted at ground level on Octavian's campsite memorial (fig. 19).¹⁶ Since the 23 sockets show at least five gradations in size, the weapons displayed at Octavian's camp originally came from the largest classes in Antony's fleet, that is, from 'tens', 'nines', 'eights', 'sevens', and 'sixes'.¹⁷ The irregular numbers of similar sized sockets imply that Octavian chose to display every large ram in his collection and not simply a representative selection of sizes.¹⁸ This evidence allows us to conclude that Antony's fleet was less a monstrous collection of 'sixes' and 'nines' (cf. Florus 2.21) than a moderately heavy Ptolemaic fleet of the late Hellenistic Age where vessels like 'threes' and 'fives' predominated. Antony's advantage lay in the fact that he possessed greater numbers and larger sizes of medium sized *polyreis* than did his enemy.¹⁹ The focus placed by our sources on these larger vessels stems from the advantage they were expected to provide during the opening phase of the battles in which they fought.

The nature of this advantage can be detected in the design of the Athlit ram whose internal timbers were carefully crafted to transfer the shock of ramming collisions to the ship's wales and bottom timbers.²⁰

¹⁶ Murray (1989) 95-114; for the dimensions and weight of the Athlit weapon, cf. Steffy (1991) 17.

¹⁷ Strabo 7.7.6 tells us that Antony's fleet possessed ships of every size from 'ones' to 'tens'; cf. Murray (1989) 99.

¹⁸ Murray (1989) 113 and 142.

¹⁹ The term '*polyreis*' (plural: '*polyreus*') is borrowed from late antiquity to define oared warships from classes larger than triremes or 'threes'. Since sizes substantially larger than 'tens' are known (the largest was a 'forty'), we might classify Antony's largest ships (his 'sixes' to 'tens') among *polyreis* of medium size.

²⁰ Steffy (1991) 6-39.

Since the Actium sockets reveal timbers crafted in precisely the same way, but on a much larger scale, we can be certain that Antony's largest ships were built to deliver and sustain ramming blows of terrific force.²¹ I mention the ramming capability of Antony's larger ships because this particular characteristic is largely absent from the historical descriptions of the battle. Instead, we are told that Antony's ships were too heavy to be effective against Octavian's smaller, more agile vessels (Plut., *Antonius* 66.1; Dio 50.29.1-4; Velleius 2.84.1; Florus 2.21.5-7). This is only part of the story, as some (though not all) of our sources recognized. Octavian knew well the ramming potential of Antony's big ships because when the fighting began, he carefully avoided 'clashing prow-to-prow against rough and hard bronze armor' (Plut., *Antonius* 66.1). In other words, he avoided the prow-to-prow charge that typically opened naval battles of this period.

A classic prow-to-prow charge involving medium-sized *polyreis* is described for us by Diodorus (20.51.1-3) at the Battle of Salamis (Cyprus) in 306 BC.²² Here, the two commanders (Ptolemy and Demetrius Poliorcetes) approached each other in a line-abreast formation. When the distance between the two fleets was about 600 meters (three stades), a prearranged signal (in this case, the hoisting of gilded shields) began the opening charge. Soon thereafter the trumpets blared another signal, the battle cry was raised, and the oar-crews urged into a sprint. As each ship took aim at the prow of the vessel opposite them in the line, units of archers and javelin throwers kept up a steady stream of fire from the decks of their ships, crouching down just before impact to hold on for dear life, and then resuming their fire at close range. If the initial prow strike was insufficient to fatally damage or cripple one's opponent, and the battle lines were still intact, the vessels backed water and charged again.

Smaller vessels were clearly at a disadvantage when challenged by larger, more solidly built ones, and so they developed a maneuver to take advantage of their smaller size and greater maneuverability. At the last moment of the prow-to-prow charge, a few seconds before impact, the helmsman would execute a swerve past his enemy's flank

²¹ Cf. Murray (1996) 340. The importance of the ram and its support structure was apparent to Appian (*Bella Civilita* 5.119), who recognized that a solid ramming blow on the ram of an enemy vessel was 'most effective in shaking the marines on deck and in rendering the vessel inoperative'.

²² Two other examples can be seen at Side (Livy 37.24.2) and at Myonessus in 190 BC (Livy 37.30.3-5).

in a maneuver called the *diéplous*. A skilled oar-crew would deftly feather its oars alongside the hull in order to shear off its enemy's extended oars as they passed by. Once past the crippled vessel, they could turn about in a maneuver called the *anastrophé*, destroy the two steering oars, and thus put their victim out of action.²³ The disabled vessel could then be attacked from a safe distance with long range weapons, struck in the flank by ramming, or ignored until later when it might still be sunk, or placed in tow as a captured vessel.²⁴ Predictably, the larger vessels preferred to crash into an opponent's prow and trust in their heavy design, while smaller vessels (like the 'threes' and 'fours' of the Rhodian navy) preferred to perfect the *diéplous* and *anastrophé* maneuvers.

Presuming, therefore, that Antony understood how properly to use his largest vessels, it is surprising that he did not open the battle with a prow-to-prow charge. Why? The ancient answer, that Antony's ships were inherently ineffective because of their excessive weight, height and mass, is not very convincing in light of the evidence from Octavian's campsite memorial. We can now appreciate Antony's fleet as comprised of medium-sized *polyvais* that were designed for a specific kind of warfare. A more convincing answer lies in the poor condition of Antony's oarcrews, which had suffered severely during the course of the summer. Sickness (Dio 50.12.8, 15.3), hunger (50.14.4), and defeats had taken their toll, and, as a result, the men were utterly demoralized (50.15.3). So many had died, deserted, or were otherwise unfit for service that Antony was forced to burn a large number of ships he could not man with crews (Plut., *Antonius* 64.1; Dio 50.15.4).²⁵ It is not surprising, therefore, when we read in Plutarch that Antony's larger ships were unable to gain momentum because they were undermanned (*Antonius* 65.5).

If we keep in mind the depressed and depleted nature of Antony's crews, we might begin to understand what Antony faced when he

called a staff meeting at the end of August to decide what to do (Dio 50.14.4).²⁶ According to Dio, Cleopatra suggested the plan that was finally adopted: to entrust the most important places to garisons and to withdraw back to Egypt. It was a remarkable decision and shows the bleak outlook of Antony's staff by the end of the summer. What follows, however, rings less true. According to both Dio (50.15.3-4) and Plutarch (*Antonius* 64), Antony hid this decision from his men and then urged them to victory with a speech (Dio 50.16-22). More revealing than anything said in this dubious speech was that painfully public act of burning undamaged ships, signaling to both friend and foe that Antony was preparing to abandon camp.

The battle that ensued has received two basic interpretations over the course of the past century. The earlier of the two, published by J. Kromayer in 1899, accepted the basic outline sketched by the surviving historical narratives. According to this view, Antony intended to retreat from the Ambracian Gulf with as many ships as he could save and continue the war elsewhere. The battle that resulted on 2 September was hard fought and eventually won by Octavian after some four and one-half hours of combat. Kromayer's interpretation remained unchallenged until 1924 when A. Ferrabino argued that Antony intended to fight for victory, not flee, and that one of his generals refused to fight and returned to harbor—an action alluded to in Horace's *Epode* 9. In the decade that followed, W.W. Tarn further developed Ferrabino's ideas, crafting an extremely seductive argument that questioned the entire source tradition upon which the 'standard' interpretation was based. According to Tarn, Actium was a myth: on 2 September most of Antony's fleet returned to port without fighting and left Antony no other option but flight. Never mind that G.W. Richardson dismantled Tarn's arguments in 1937. By this time, the interpretation had been canonized in the *Cambridge Ancient History*, and it so shook scholarly confidence in the historical tradition of the battle that R. Syme pronounced Actium 'a shabby affair', a quote still used to characterize the event.²⁷

²⁶ For the general problems surrounding Antony's strategy, cf. Reinhold (1988) 104-5.

²⁷ The basic sequence of published articles is as follows: Kromayer (1899), Ferrabino (1924), Kromayer (1931), Tarn (1931), Kromayer (1933), Tarn (1934), Richardson (1937), Tarn (1938) and Syme (1939) 297. For a recent assessment that shows the influence of Tarn and Syme, see Reinhold (1988) 115-16.

²³ For examples, see Diod. Sic. 20.51.3, Polyb. 16.4.14 and Livy 37.24.2. If the oar-crew was not prepared, they could lose their own oars during the maneuver; cf. Polyb. 16.3.12-14.

²⁴ Polyb. 16.4.14-15 (attacks immediately after the *diéplous*), 16.6.12 (towing away previously disabled ships), and 16.6.13 (holing those ships that one could not tow away).

²⁵ Out of the 500 warships that came with Antony to Greece, less than half (230 ships) were manned for the final battle; see below, n. 28.

If my interpretation of the evidence from Octavian's campsite memorial is correct, however, we should no longer question the fact that a fierce battle occurred during the afternoon hours of 2 September 31 BC and that this battle involved the use of fire. The reasons why can be deduced from the various warship totals recorded for Antony's fleet before, during and after the battle. According to the totals that most scholars accept as reliable and which probably derive from Livy's lost account, Antony manned approximately 230 ships out of his original fleet of 500 warships.²⁸ If Octavian collected between 330 and 350 rams from Antony's fleet of 500 warships during the course of the war (and this would include rams still on seaworthy vessels as well as those fire-warped rams salvaged from Antony's camp), roughly 150 ships remain unaccounted for.²⁹ When we subtract from this total the 60 ships that escaped with Cleopatra (Plut., *Antonius* 66.3), we are left with 90 warships for which we still have no record.

What happened to these vessels? It is reasonable to assume that a few escaped from the gulf with Antony, while others made their way to Egypt from duty stations around Greece. No totals are recorded for these vessels, so the number cannot have been large, perhaps less than a half-squadron of 30 ships.³⁰ If fewer than 90 ships returned to Egypt with Antony and Cleopatra, more than 60 have disappeared without a trace. Had these ships been abandoned, disabled or burned on shore before, during or after the event? In September 2d, Octavian would have eventually salvaged their remains and included their number in his tithe. These 60 vessels must have been destroyed in some way that put their rams beyond Octavian's salvagers and this implies to me their destruction by fire at sea.³¹ This

²⁸ For references to the main arguments, see Murray (1989) 133–4. The numbers are recorded by Florus (2.21.5), Orosius (6.19.9, 11) and Plutarch (*Antonius* 61.1) who says that Antony brought to Greece 'no less than 500 fighting ships' (i.e., warships). Accordingly, Antony manned about 170 vessels on the morning of the final battle; Cleopatra manned 60. This same tradition (Florus 2.21.5) records the numbers in Octavian's fleet at more than 400.

²⁹ For the purpose of this discussion, I will work from the larger number (i.e., a tithe of 35 rams) because it minimizes the number of ships for which we have no record.

³⁰ Tarn ((1931) 190–1) shows that Antony's squadrons totaled roughly 60 ships each. He originally argued ((1931) 195) that 40 ships escaped with Antony, although he admitted some years later ((1938) 167) that the number might be as low as 15 to 20. Surely some author would have mentioned them if the number escaping with Antony had approached a full squadron.

³¹ See Murray (1989) 133–5, for those authors who record the use of fire before,

revelation is important because it renders Tarn's view of the battle impossible, and our much maligned sources regain some of their lost credibility, at least regarding the broad outlines of the struggle they describe, the fierceness of the fight, and the use of fire to destroy a part of Antony's fleet.

Let me briefly explain how this destruction by fire might have rendered 60 rams unsalvageable by reference to HMS *Charon*, a British warship set afire during the battle of Yorktown (Virginia) in 1781.³² Ignited by red-hot shot from a French battery, *Charon* burned through her moorings, drifted across the river and then grounded on a sandbar. As the fire consumed her superstructure, she became lighter, floated higher in the water, and continued to burn until finally the weight of her ballast caused her to sink. In the end, only some 5% of the hull survived to be investigated. Antony's lightly ballasted warships would have suffered a similar fate. The rams of these burning vessels, being mounted at the waterline well above the keel, would have slowly emerged from the water as fire consumed their hull, and then would have dropped into the depths once their support timbers had burned through. In light of *Charon's* experience, the loss of 60 rams into deep water through the agency of fire is perfectly credible.

When we look at these totals in a slightly different way, the conclusions are still the same. If a low estimate of missing rams says that 60 warships were destroyed in such a way that their rams were unavailable for salvage, and that 90 escaped with Cleopatra and Antony, then Octavian managed to recover 80 rams from ships destroyed or captured during the course of the battle (60 + 90 + 80 = 230). This means that Octavian captured or destroyed a total of 140 vessels during the afternoon hours of September 2nd. Compared with known casualty figures from other major battles of the previous three centuries (see Table 1), these totals are credible and affirm that Actium, like other battles of the period that resulted in a similar degree of destruction, must have involved a fierce fight and the use of fire, just as our sources tell us.

during and at the end of the battle. We should also remember that Agrippa had used fire to destroy the fleet of Sextus Pompey at Naulochus just five years before (App., *Bella Civilia* 5.121).

³² Cf. Delgado (1997) 97.

If the battle on 2 September involved more 'real' fighting than most scholars currently believe, we might profitably reconsider the battle based on what we have learned about Antony's largest warships from Octavian's campsite memorial. Considering the biased nature of our sources, however, any plausible reconstruction must be based on two factors: (1) what we know about the actual use of medium-sized *polyboreis*, and (2) what our sources tell us that is consistent with the reality of naval warfare when these classes were used. What follows is not a comprehensive reconstruction of the battle but, rather, an attempt to focus on those elements of the battle most affected by these factors. By now, we have seen that normal procedure called for a prow-to-prow charge to open the fighting. Such a charge began documented battles at Salamis, Chios, Side, Myonessus, and probably also Mylae and Naulochus.³³ We also know that the standard way to attack larger classes was to avoid their bows through the use of *diephlous* and *anastrophe* tactics. For Antony's fleet, therefore, it was imperative that he adopt a plan to defend against these tactics and, at the same time, to engage the enemy in a prow-to-prow contest with his larger vessels.

What might he have done? Keep in mind that I am now offering an educated guess, based on what we know of Hellenistic naval warfare, the capabilities of Antony's ships and the use of these classes in recorded battles (we do not possess sufficient evidence to do more). Antony's only hope for victory lay in his ability to cause panic among one wing of the enemy's fleet, and then to encourage it to spread to the rest of the fleet. Following the example of Demetrius Poliorketes at Salamis in 306 (Diod. 20.50.3-4), he might concentrate his largest *polyboreis* (his 'sevens' to 'tens') on one wing and hope to crush and scatter those who opposed him. The victorious wing might then bear down on the undefeated ships of the enemy, cause them to break formation and flee, and thus allow his entire fleet to withdraw southward unopposed. Such a plan demanded that he place his strengthened wing on the north (right) side of his line, so that once it scattered the opposite wing of the enemy, it could turn beam-on to the wind, roll up the enemy's line and then escort the rest of his fleet toward the south, away from the battle zone. Additionally, any plan to protect against the *diephlous* maneuver (and a general encirclement as well)

³³ Salamis (Diod. Sic. 20.51.1-3); Chios (Polyb. 16.4.7); Side and Myonessus (Livy 37.24.2, 30.3-5); Mylae and Naulochus (Appian, *Bella Civilia* 5.106, 119).

Table 1. Known Warship Casualty Figures Sustained by Defeated Forces in Naval Battles from 306 to 31 BC

BATTLE	DATE	CASUALTIES (Warships)
Salamis (Cyprus)	306 BC	Losses = 85.7% of total fleet. Ptolemy lost 120 warships out of a total force of 140 (40 with crews by capture, 80 by ramming). Those destroyed by ramming were eventually towed, full of sea water, to Demetrius' camp before the city of Salamis. ³⁴
Mylae (Sicily)	260 BC	Losses = 33.8% of total fleet. The Carthaginians lost 44 warships out of a total of 130 (31 by capture, 13 by ramming). ³⁵
Enomus (Sicily)	256 BC	Losses = 26.9% of total fleet. The Carthaginians lost more than 94 warships out of a total force of 350 (64 by capture, and more than 30 by ramming). ³⁶
Chios	201 BC	Losses = 50.7% of total fleet. Philip V lost 103 warships out of a total force of 203 (10 by capture, 93 by ramming). ³⁷
Myonessus (Ionia)	190 BC	Losses = 47.2% of total fleet. Antiochus III lost 42 warships out of a total force of 89 (29 by ramming and by fire, 13 by capture). ³⁸
Mylae (Sicily)	36 BC	Losses = 19.4% of total fleet. Sextus Pompey lost 30 out of a total force of 155. ³⁹
Naulochus	36 BC	Losses = 61% of total fleet. Sextus Pompey lost 183 warships out of a total force of 300 (28 by ramming, and 155 by capture and by fire). ⁴⁰
Actium	31 BC	Losses = 60.9% of total fleet. Antony lost ca. 140 warships out of a total force of 230 (ca. 80 by ramming and/or capture, and ca. 60 by fire?).

³⁴ Diod. Sic. 20.49.2 (fleet size); 20.52.6 (casualty totals).

³⁵ Polyb. 1.23.3 (fleet size); *CIL* VI 31611 = *ILS* 65 (casualty totals; cf. Polyb. 1.23.10).

³⁶ Polyb. 1.25.9 (fleet size); 1.28.12, 14 (casualty totals).

³⁷ Philip's force consisted of 53 cataphracts, an unknown number of open galleys like trihemoliae, and 150 small open galleys called *lemboi* and *pristisai* (Polyb. 16.2.9). Of the 50 warships disabled by the Rhodians, 40 were *lemboi* (Polyb. 16.7.2). We must add to the totals given by Polybius at the end of his account (16.7.1-3) one 'eight' that was destroyed (16.3.2), and another that was captured (16.3.8-11) during the battle.

³⁸ Livy 37.30.1-2 (fleet size); 37.30.7-8 (casualty totals).

³⁹ Appian, *Bella Civilia* 5.105 (fleet size); 5.108 (casualty total).

⁴⁰ Appian, *Bella Civilia* 5.118 (fleet size); 5.121 (casualty totals).

must have involved the positioning of a second line of warships closely behind the front line.⁴¹ And in fact this is where we find Cleopatra's squadron of 60 warships.⁴²

When the battle started, what did Antony do? First of all, there was no prow-to-prow charge. Why? Antony's ultimate goal was to get out of the Ambracian Gulf and, for this reason, he assumed a defensive posture with his ships packed closely together. His battle plan, therefore, involved a wait-and-see strategy, hoping that his enemy would make the necessary mistakes allowing him to disperse a portion of their fleet and drive the rest away in fear. It was his only chance. There was another reason that no charge occurred. Octavian's commanders kept a distance of about a sea mile (eight stades) between themselves and the enemy (Plut., *Antonius* 65.4). If Antony ordered a sprint toward the enemy line, his depleted oarcrews would have been exhausted by the time the ships finally engaged.⁴³ Unable to attack with his right wing, Antony had no choice but to assume a defensive posture in line-abreast formation. With roughly a ship's length between each of his vessels, his line would have stretched almost 6 km in length and gives us an idea of the position he assumed when he stopped his forward momentum.⁴⁴

⁴¹ The options available to Antony were limited. One might defend against *dékēplous* attacks by reducing the intervals between ships, something which he also seems to have done, but this increased the possibility of encirclement by an enemy *periplous* maneuver. Another possible defense required more ships than Antony had at his disposal. This tactic was used in 201 BC at Chios when Philip V placed small open galleys in the gaps between his medium-sized *phylaxeis* (Polyb. 16.4.8). The defense Antony chose to adopt, the double line formation, was used with success by Demetrius at Salamis in 306 BC (Diod. Sic. 20.50.3-4). In all three formations, success depended on the strict maintenance of order with well-disciplined and physically fit oarcrews.

⁴² Many assume (cf. Reinhold (1988) 114) from the arrival of merchant ships at Tainaron after the battle (Plut., *Antonius* 67.5) that Cleopatra's squadron included heavy transports as well the treasury, but I do not see how this can be possible. If her squadron included these vessels, they must have been in tow considering the sea breeze that was blowing into the gulf. Are we then to suppose that she cut the tow lines when she made her successful dash for freedom? And if this was the case, then how did the transports make it out of the gulf to appear a few days later at Tainaron? Small details like these underscore the inadequacies of our 'best' historical accounts and the difficulties we must face in dealing with them.

⁴³ The distance between the fleets at Salamis was three stades when the sprint commenced (Diod. Sic. 20.51.1). Sea battles were strenuous affairs and weakened crews were at a decided disadvantage. In 190 BC, sick Rhodian oarcrews had to pause to regain their strength during the battle of Side, and their weakened condition made them unable to overtake a fleeing enemy (Livy 37.24.5-10).

⁴⁴ Information about ship spacing within the line is generally lacking from our ancient battle accounts, yet we know that it must have been an important factor.

Here he waited (fig. 20), hoping that Octavian or one of his commanders would make a mistake and close the distance between the two fleets, but no mistake was made.

Finally, it seems that the sea breeze forced Antony's hand, which, according to Plutarch (*Antonius* 65.5), began to fill in around noon (he says 'at the 6th hour'). Antony will have known by experience that the western sea breeze, which is predictable and regular throughout the summer, would strengthen throughout the afternoon and make rowing into its teeth exhausting work for his depleted crews.⁴⁵ Since his plan for escape relied on the use of his sails, his fleet had to be far enough out to sea so that when it finally turned southward to avoid the mass of Leucas, the wind would blow at an angle of 90 degrees to the fleet's direction of travel or heading. For this reason, once the breeze began to blow around noon, Antony had no choice but to extend his line out from the shore where his smaller, tighter formation of ships (cf. Dio 50.31.4-5) became increasingly vulnerable to attacks from the side and rear. Plutarch writes (*Antonius* 65.4-5) that Caesar was delighted with this development, and that he ordered his right wing to back water and to draw Antony's line ever farther from the shore. Agrippa, whose greater experience at sea implies that he, not Octavian, directed the overall battle strategy, remained motionless on the left wing (Plut., *Antonius* 66.3) and awaited Antony's advance, maintaining a loose contact with the shore.⁴⁶

As Antony's line advanced toward the enemy, his right eventually became separated from his center (Plut., *Antonius* 66.3). The reason why this occurred is not difficult to imagine, given the topography of the coast, which recedes toward the north, and Antony's need to

When Caesar adopted a tightly packed formation before Alexandria, he placed 17 ships in a gap that measured 400 paces from side to side (= 592 m.; cf. *Bellum Alexandrinum* 14.1; Murray (1998) 521-2). These 17 ships would have produced 18 gaps of 33 m. from centerline to centerline (including the borders of the gap). Allowing for similar gaps to the right and left of Antony's formation and using the same spacing between vessels, his line at Actium would have measured roughly 5676 m. in length (cf. fig. 20).

⁴⁵ Carter ((1970) 218-20) provides an excellent description of this sea breeze effect at Actium and offers a convincing reconstruction of the battle based upon considerations of this breeze, the local topography and Antony's use of sails to make good his escape.

⁴⁶ Carter ((1970) 221) feels that Arruntius (in the center) and Agrippa must have backed water in concert with Octavian's right wing. We should also remember, that despite what our sources report, Octavian's entire line would have had to back water slightly to offset the natural tendency for the strengthening breeze to push them downwind toward Antony's bows.

move seaward in order to make good his escape.⁴⁷ From Thucydides (7.38.3) we know that gaps up to 200 feet wide (2 *plethra*) were still considered an adequate defense against *diekplous* attacks when merchant ships were anchored as a defensive barrier against 'threes'. But once Antony's ships moved further apart than this, his squadron commanders were faced with a choice. They must either allow their entire front to become vulnerable to *diekplous* attacks, or they must maintain a defensible spacing within squadrons but allow a gap to separate one squadron from another. At this point it seems that L. Gellius Poplicola made the decision to separate from the center squadron (Plut., *Antonius* 66.3).⁴⁸ Since Agrippa's inshore position presented a serious threat to Antony's right wing as it moved seaward, he really had no choice. Thereafter, when the increasing gap between the right and center squadrons exposed the vulnerability of Antony's front line, he was forced to engage the enemy. When Antony's tir-ing crews finally closed the interval between the fleets and no one scattered seaward, it became clear to those in the second line that no crushing victory would occur on Antony's right. Agrippa, in command of Octavian's own considerable force of *polyreis*, had successfully avoided a vigorous prow-to-prow contest with Antony's larger vessels.⁴⁹ And now, the battle could be decided by tactics more favorable to Agrippa's better conditioned fleet—deck fighting and gang attacks on individual ships.

Elsewhere, Octavian's commanders relied on their numerical superiority to attack their opponents in groups of two or three (Dio 50.32.6). In this way, they were able to avoid the prow strikes of a more equal contest and attack their enemies in the side.⁵⁰ Eventually

⁴⁷ Cf. Carter (1970) 219–20: '... for every mile Antony could make to seaward, the angle between the direction of the wind and the western tip of Leucas increased by half a point. Antony therefore wanted to bring on the battle as far out to sea as he could, so as to have the afternoon wind at least slightly behind him when he broke and ran for it.'

⁴⁸ Carter (1970) 220–1 concludes from this that Poplicola was 'in tactical command of Antony's right'. It may be that Publicola was in command of the left side of the right squadron (i.e., wing), and was the one who chose to maintain his formation with the rest of the wing and thus to separate from the center.

⁴⁹ Octavian's fleet was not as 'light' as the historical authors would have us believe. It seems that the largest units in his fleet were 'sixes', and it is reasonable to assume that he possessed a considerable number of these. See Murray (1989) 143–51.

⁵⁰ Plutarch (*Antonius* 66.1–2) mentions that Octavian's ships avoided prow attacks as well as flank attacks because they feared the strength of Antony's hull timbers. This is surely an exaggeration, as Dio Cass. (50.32.6 and 8) makes clear.

Octavian's numerical advantage began to take its toll, as more and more of Antony's ships were put out of action. At some point, when the possibility for dispersing the enemy had definitely passed but when the fighting was still intense enough to limit pursuit, Cleopatra led her squadron through the gap that separated the right wing from the center and gained enough sea room to raise her sails. Whether we choose to censure or praise this action, we must admit that Cleopatra personally commanded the largest portion of the fleet that escaped. And if we admit that the primary objective was to retreat from the gulf with as many ships as possible, it is difficult to blame her for successfully leading an entire squadron to safety.⁵¹

Regardless how we interpret her action, this move precipitated a general flight on the part of Antony's fleet. The plan to disperse the enemy had not been successful, and with the protective rear line moving seaward, it became the duty of each vessel to care for itself. The result was a general rout, except that Antony's ships were unable to flee from their pursuers. This is not because they did not try. Those who were able to disengage did so and threw their fighting towers into the water to lighten their ships (Dio 50.33.4). Antony himself transferred from his flagship (probably a 'ten') to a 'five' so as to make a speedier escape (Plut., *Antonius* 66.5). But the remainder of the fleet was not so fortunate, and they were abandoned to an enemy intent upon their destruction. At this stage, when Antony's vessels were more focused on flight than on defending themselves, it seems that many vessels succumbed to fire.⁵² Almost the same thing had happened to Pompey's fleet at Naulochus (cf. Appian, *Bella Civilia* 5.121).

It is well known from infantry warfare that great numbers of casualties can be inflicted on the defeated force during the chaos of a full flight. So it was at Actium, if one may judge from the 'missing' 60–90 ships implied by the dedication at Octavian's campsite memorial. Plutarch maintains that Cleopatra fled before the battle was decided and that even after Antony's departure, the fleet fought on for a long time (*Antonius* 68.1). It might be closer to the truth to say that the killing went on for a long time, and that only the degree

⁵¹ Cf. Kromayer (1899) 45–8; Reinhold (1988) 114.

⁵² Although Dio Cass. (50.34–5) describes the fire in terms that are too sensational to be believed and falsely asserts that Octavian waited until this moment to call for fire from his camp, fire must have played a significant role in the final rout. See Murray (1989) 134–5.

of victory was in doubt.⁵³ In this fact we find a potent reason for the battle's troubled record in the historical accounts of the period. Although we might guess that Octavian's fleet showed no mercy toward the fleeing enemy, the blood lust of battle quickly dulled once Octavian needed to cement agreements of reconciliation with Antony's army and allies (Dio 51.1.4-5; Plut., *Antonus* 68.3).

Later still, when the conflict with Antony and Cleopatra had been successfully concluded, Octavian's main concern was to heal the wounds of civil war, so he encouraged those who wrote about the battle to continue the line of propaganda that had led 'all Italy' to support his cause. The conflict was therefore described in a general way that placed the blame for the war squarely on the shoulders of Cleopatra and Antony. The glorification of Romans killing Romans, no matter how critical for his cause at the time, was not to become part of the birth legend of the New Age. To provide an example, he wrote a personal account of the battle that stressed the role of his own Liburnians (a class of warship smaller than triremes), minimized the role of Agrippa's *polyreis*, and perhaps even understated the number of human casualties.⁵⁴ The preserved narratives still reflect the great influence of Octavian's version, which, ironically, proved so successful in obscuring the battle's details that most scholars now distrust even the basic outline of the battle as tainted beyond recovery.

Although we can never know for certain what happened at Actium on September 2nd, Octavian's dedication of rams reflects his mind soon after the battle, long before he had settled on the version he wished posterity to remember. As a result, those hoping to pierce the 'myth of Actium' and to recover the broad outlines of the final battle must consider the nature of Octavian's dedication and the physical reality suggested by Antony's largest warships. Therein may lie our best chance to refine the possibilities of an event that will always resist a complete explanation.

⁵³ According to Suetonius (*Divus Augustus* 17.2), the fighting went on so long that Octavian spent the night aboard his ship.

⁵⁴ For the evidence, see Murray (1989) 143-51. By their very nature, human casualty totals are difficult to record accurately and are an easy tool for the propagandist to use. For this reason, I am not overly impressed by Octavian's claim that the casualties were limited to 5000 killed (cf. Plut., *Antonus* 68.1). Other numbers that circulated following the battle were higher; cf. Orosius (6.19.12), who reports that 12,000 were killed and 6,000 were wounded (from which an additional 1,000 died).

To John, who, by personal example, has made me a better scholar, teacher and mentor.

This should precede my title
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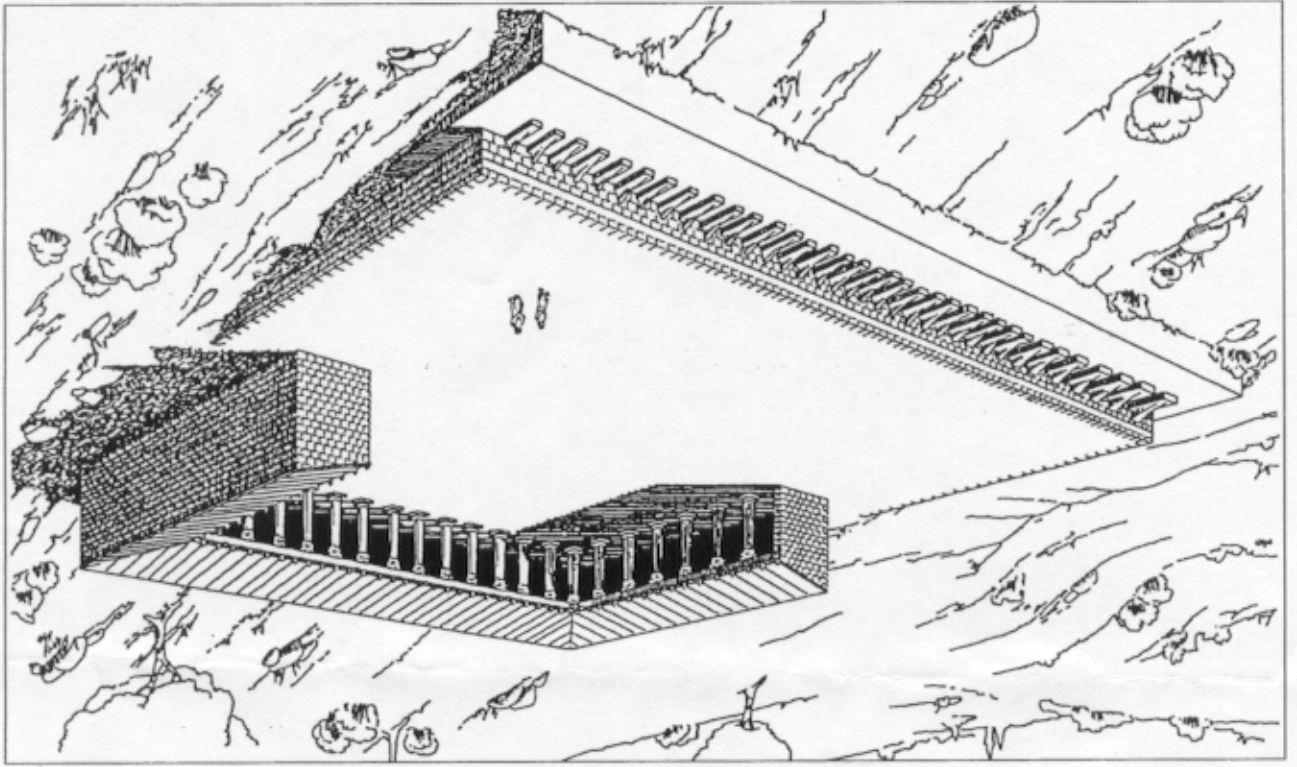


Figure 18. Octavian's Campsite Memorial (restored view from the southeast)

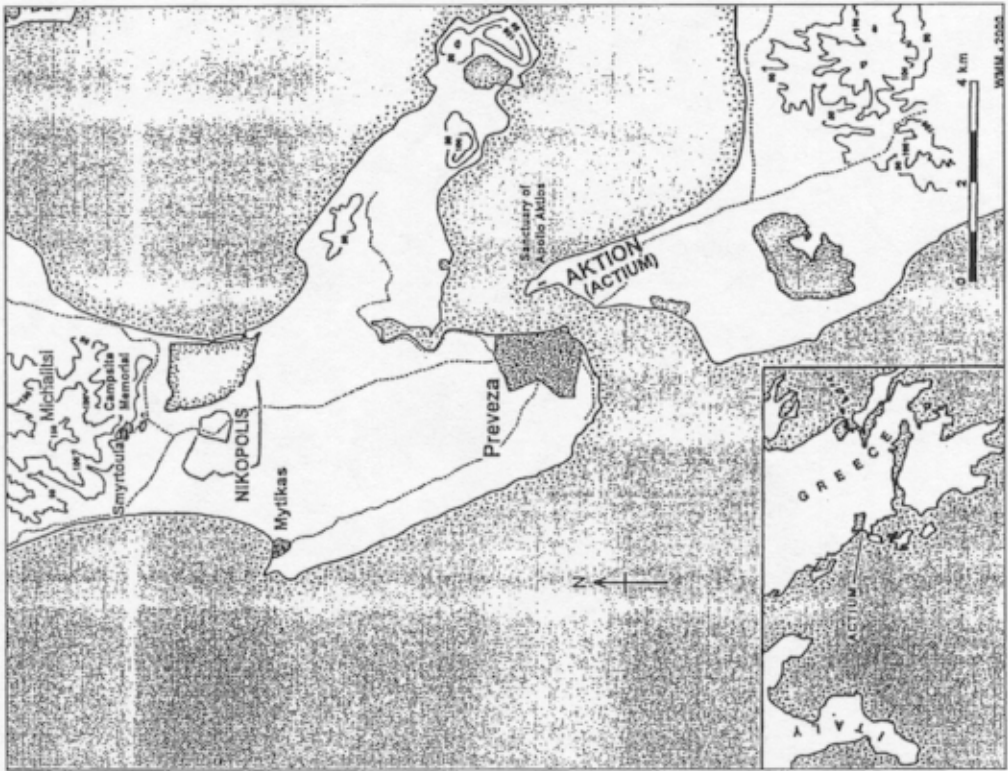


Figure 17. Cape Actium and the entrance to the Ambracian Gulf

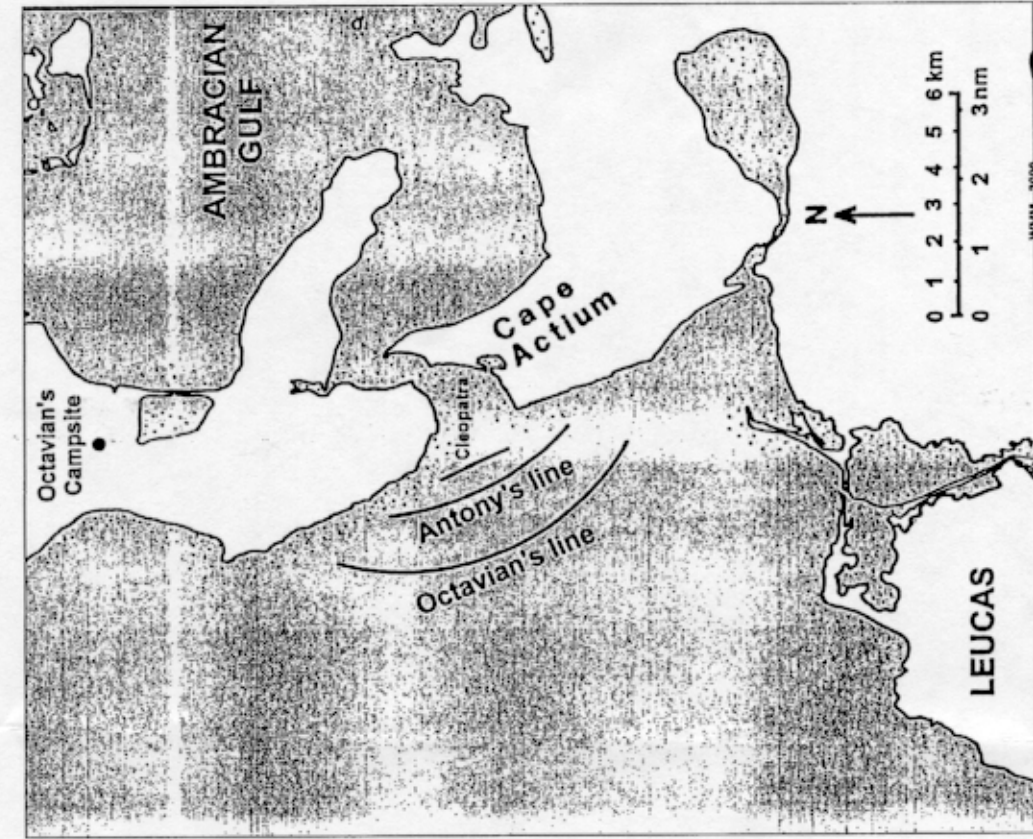


Figure 20. Battle lines before Antony's fleet moved toward Octavian's line (ship-spacing = 33 m.; distance between fleets = 1 nautical mile)

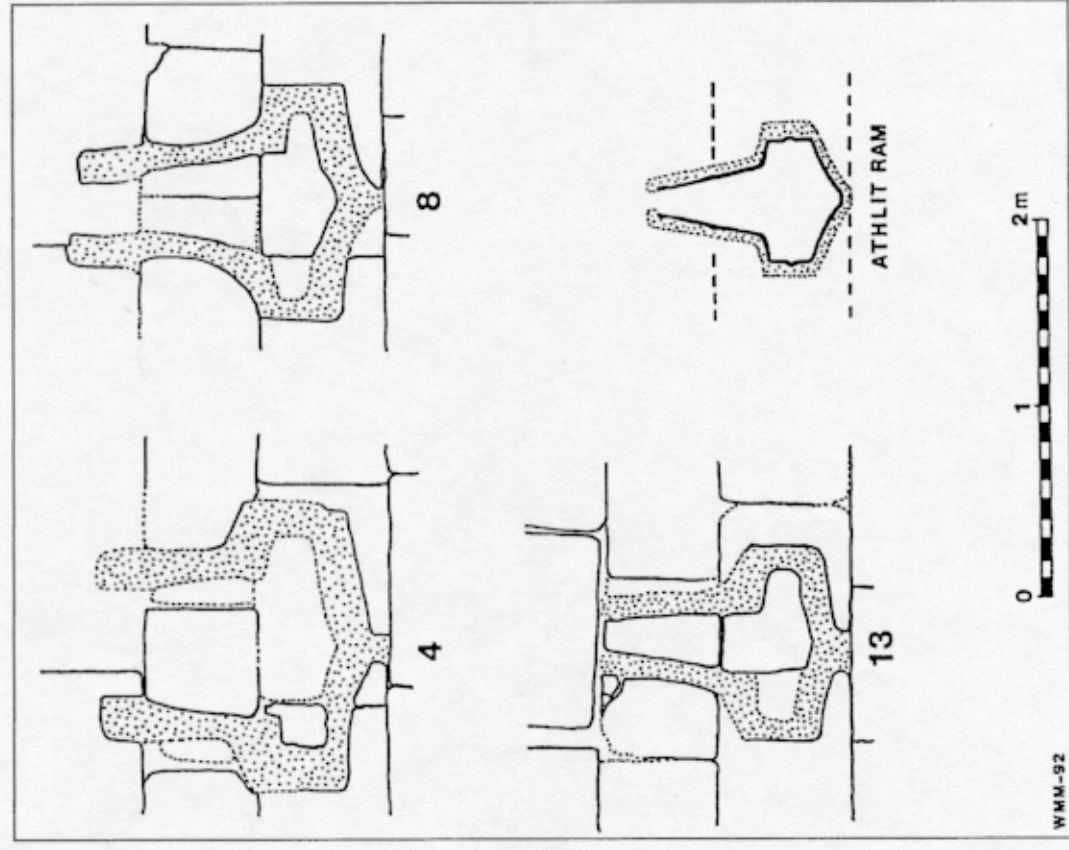


Figure 19. Comparison of socket sizes (including one appropriate for the Athlit ram)

WMM-92