

JEFFREY G. ROYAL and
SEBASTIANO TUSA (Eds.)

THE SITE OF THE BATTLE OF THE AEGATES ISLANDS

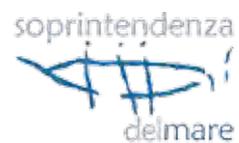
at the end of the First Punic War

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THE SITE OF THE BATTLE OF THE AEGATES ISLANDS AT THE END OF THE FIRST PUNIC WAR

Fieldwork, analyses and perspectives

2005-2015

by

Jeffrey G. Royal and Sebastiano Tusa

with major chapters by

A. L. Goldman, W. M. Murray and J. R. W. Prag

and additional contributions by

G. Alías, M. Aulinas, R. Blanchette, C. A. Buccellato, R. Cabella,
C. Capelli, E. Faber, G. Garbini†, T. Gnoli, B. Held, J. C. Henderson,
F. Oliveri, M. Piazza, A. Rose, P. C. Schmitz and L. Weeks

THIS WORK IS ALSO NOW DEDICATED TO THE MEMORY OF SEBASTIANO TUSA

Abstract

The final battle of the First Punic war between the Romans and Carthaginians, the Battle of the Aegates Islands, took place in 241 B.C. Under the Egadi Islands Survey Project led by the Soprintendenza del Mare, Sicily, intensive survey resulted in unique discoveries from an ancient battlefield. This publication includes the field seasons from 2010-15. Finds of bronze warship rams, armor, amphoras, inscriptions, and evidence of shipwreck sites confirm the discovery of this ancient naval battle landscape. Moreover, these artifacts provide new lines of inquiry into Latin epigraphy and the role of officials, the formation of battle landscapes, the dimensions of warships and their rams, types of personal armor, cultural change during the 3rd century B.C., and the economics of fleet construction during the First Punic War.

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Con il contributo del Parco Archeologico di Segesta, nel ricordo di Sebastiano Tusa: grande archeologo, studioso, Assessore della Regione Siciliana, persona di eccellenti qualità e di notevole spessore umano e culturale. Un collega. Un caro Amico.

Rossella Giglio, Direttore del Parco Archeologico di Segesta

Premessa

La Battaglia navale delle Egadi, combattuta il 10 marzo del 241 a.C., vedeva fronteggiarsi le flotte romane e cartaginesi, queste ultime alla fine sconfitte: la data coincide con lo stesso giorno e mese della scomparsa di mio marito Sebastiano Tusa, avvenuta nel disastro aereo di Bishoftu -Addis Abeba il 10 marzo 2019.

Tanto più sconvolgente questa coincidenza, in quanto di quell'evento epocale Sebastiano fu lo studioso più importante e innovativo, che ha fornito risultati che hanno radicalmente mutato una storiografia stratificata da tempo su erronee attribuzioni e indebite certezze. Risultato brillante che poté evolversi proprio per la qualità della sua ricerca, variegata e interdisciplinare, cui si sommava la ricerca accurata delle fonti e il suo interesse costante per il mondo pionieristico dell'archeologia subacquea, con il quale egli aveva da tempo instaurato un rapporto ferreo di collaborazione, nel convincimento che tale federarsi avrebbe presto originato una chiave interpretativa non più fantomatica, bensì fondata sulla mappatura rigorosa dei nuovi reperti in evidenza e sulla precisa individuazione del loro ritrovamento. Dono perspicuo era infatti quello di comunicare, divulgare, istruire e rendere tutti partecipi dei nuovi saperi che egli andava esplorando, finalizzandoli alla tutela di un patrimonio culturale immenso.

E fu per questa sua dotta ermeneutica, in lui innata, che egli riuscì a coinvolgere, nelle sue imprese squadre di predatori, ricchi però di felici intuizioni, presto trasformati in collaboratori fidati, competenti e capaci, operando nello stesso modo anche con i diving che istruiva personalmente nei fantastici musei sommersi da lui creati in tutto l'arcipelago siciliano, e di cui diventavano guide imprescindibili e affidabili tutori.

Il tutto infine era completato da un sistema costante di telerilevamento, fruibile anche da lontano, collegandosi da casa con il proprio computer oppure dalle telecamere, posizionate presso le sedi della Polizia Municipale, le quali trasmettevano in tempo reale lo stato dei reperti archeologici regolarmente archiviati dalla Soprintendenza del Mare e non più soggetti ad accumuli informali.

È con questo metodo al contempo rigoroso ed immaginifico che mio marito poté scoprire e far sequestrare un rostro, l'arma micidiale usata durante la battaglia, surrettiziamente custodito presso uno studio medico; operazione di intelligence da lui peraltro condotta in collaborazione con il Nucleo Tutela Patrimonio Artistico dell'Arma dei Carabinieri, che in modo davvero encomiabile continua a svolgere questo suo prezioso incarico.

Nel seguito delle indagini scientifiche si è avvalso dell'ausilio di prestigiose fondazioni quale la R.P.M. Foundation, egli riuscì conseguentemente a stabilire che il campo della Battaglia delle Egadi in alto fondale era con certezza quello da lui individuato a ridosso di Capogrosso, e non a Cala Rossa, come si asseriva con pertinacia in numerosi testi accademici da tempo pubblicati.

Scoperta che gli permise di recuperare in questo specchio di mare molti dei rostri inabissati e numerosi elmi consentendone il restauro e la conseguente realizzazione del progetto museologico e museografico con ricostruzioni inoppugnabili sul vero sito della battaglia, attualmente visitabile presso lo Stabilimento Florio di Favignana. Questo volume che Sebastiano aveva completato, e consegnato all'editore, che con solerzia mi informava dello stato della sua pubblicazione, mi ha ora indotta a editarlo senza variazioni o modifiche nel rispetto di chi lo ha scritto e delle scelte da lui operate.

È altresì mio intendimento realizzare una traduzione italiana, evenienza che impreziosirebbe l'opera di altri scritti in mio possesso, in grado di apportare ulteriori approfondimenti alla conoscenza globale dell'evento.

È mio pressante desiderio sviluppare tali idee in stretta collaborazione con le Università, le Fondazioni e i Centri di Ricerca che lo hanno da sempre coadiuvato, in modo da far sì che il suo messaggio continui a prosperare e che i suoi progetti siano da stimolo per sempre nuove ricostruzioni.

Con le massime autorità regionali, che mi confortano in questo momento drammatico, sto infine pensando di costituire una Fondazione a suo nome che diventi anche stimolo e offerta di lavoro per i giovani di talento, capaci di arricchirla attraverso sistemi integrati di cultura e turismo, l'utilizzo delle nuove tecnologie oltre che di una visione quanto più possibile cosmopolita.

Un ringraziamento di cuore desidero in conclusione rivolgere agli sponsor, che hanno immediatamente risposto alle mie richieste d'aiuto consentendomi di portare a compimento questa mia impresa editoriale, che attendeva soltanto di vedere la luce e donare continuità al pensiero fecondo di Sebastiano, persino oltre la scomparsa del suo indimenticabile protagonista.

Valeria li Vigni Tusa

Acknowledgements

This volume presents different kinds of research on the artifacts and site of the Battle of the Aegates Islands. As stated in our preliminary report (*JRA* 25 [2012] 7 n.1), the project was conceived and directed through the cooperative efforts of the two undersigned authors and their institutions during those years, the Soprintendenza del Mare–Sicilia and RPM Nautical Foundation (Key West, Florida; henceforth RPMNF). Many individuals provided support throughout the study and we wish to thank them hereby. We thank all the members of the Soprintendenza del Mare–Sicilia staff who have worked for more than a decade on this project. Within the underwater unit they include in particular: S. Emma, A. Fresina, F. Oliveri, S. Palazzolo, P. Tisseyre and S. Zangara. Appreciation goes to G. Garbini (Università di Roma La Sapienza) for his analysis of the Punic inscription on ram no. 3 and to T. Gnoli, who kindly made available a series of papers concerning the inscription on ram no. 1 and has also contributed his interpretation to this volume.

Much gratitude also goes to M. Pagano (Soprintendente per I Beni Archeologici dell'Umbria) for granting us permission to use images of helmets in the Museo Civico Archeologico Nazionale di Perugia, and to L. Minarini for images of helmets in the Museo Civico Archeologico di Bologna. C. H. Hallett and T. Hölscher reviewed the iconography of rams nos. 4 and 6. G. Olcese and R. Docter kindly offered opinions on the amphoras and were most helpful in furthering that research. The discussion of the properties of the wood benefitted greatly from consultation with B. Jordan. For the warships much was gained from discussions with D. Blackman, F. Hocker, B. Rankov and D. Stewart. The chapter on bronze benefitted greatly from its review by C. C. Matusch and consultation with P. Visonà.

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This work is dedicated to the memory of the late Giovanni Garbini, who contributed greatly to Punic and Phoenician studies and will be greatly missed.

Jeffrey G. Royal

Sebastiano Tusa†

IN MEMORIAM

Giovanni Garbini

Foreword

Sebastiano Tusa†

Director
Soprintendenza del Mare–Sicilia

James Goold

Chairman of the Board
RPM Nautical Foundation

The present volume reports on work performed between 2005 and 2015 in the context of the partnership between the Soprintendenza del Mare–Sicilia and RPM Nautical Foundation. RPM Nautical Foundation was founded in 2002 by George Robb, Jr. with the goal of applying to nautical archaeology technologies that had been developed for mid- and deep-water commercial projects. The idea was that such technologies (e.g., dynamic positioning systems, multi-beam remote sensing, or the use of remotely operated vehicles) could be adapted for systematic archaeological surveys of large swaths of the seabed below the depths accessible to traditional scuba divers. The need to move nautical archaeology into deeper waters had become clear as an increasing number of archaeological sites in the Mediterranean Sea were being destroyed by commercial fishing operations, casual looting and treasure-hunting. RPM therefore brought into operation the *Hercules*, a 37.5-m research vessel that can accommodate up to 13 crew, technicians and archaeologists for campaigns lasting 3-4 months.

The present partnership was intended to test the viability of achieving archaeological goals using such resources. It was the ability of archaeologists, engineers and historians to work together at an international level that proved to be the main ingredient in the success of the discovery of the exact location of the Battle of the Egadi Islands, fought on March 10, 241 B.C. As was already claimed in the preliminary report published in this journal,¹ the present partnership is the first nautical archaeology project to have succeeded in locating the site of a naval battle in the ancient Mediterranean. Thanks to more than a decade of research by the Soprintendenza del Mare and RPM Nautical Foundation, during which rams, helmets and other artifacts were found, the location of the battle site could be identified with topographic precision, causing new light to be shed on this historic event. The most sensational breakthroughs occurred thanks to the latest, most innovative methodologies and technologies which have made their mark in underwater archaeological research over the past two decades.

Sometimes individual discoveries that do not have a great importance due to their lack of an archaeological context have been blown out of proportion by the media, but this was not the case with the many discoveries made thanks to a targeted, systematic methodology based upon carefully-researched and closely-interconnected historical and archaeological premises. The precise demarcation of the area to be explored came from a series of detailed analyses of ancient historical sources (chiefly Polybius, Diodorus, Eutropius and Zonaras), from available archaeological data, and from a knowledge of marine weather conditions. The area lying next to the imposing mass of Capo Grosso at the N end of the small island of Levanzo, the northernmost of the Aegades archipelago facing the W tip of the main island of Sicily, turned out to be the one to be explored, substantiating our initial hypotheses. The area northwest of Levanzo is where the first rams were located, and it is now certain that the exact place of conflict between the two fleets was a narrow area some 4 miles northwest of Levanzo. This has enabled us to reconstruct the key moments of the naval battle and the intentions of the two fleets. With our explorations being initiated in 2004 deliberately in the waters off the Aegades, the discovery of bronze rams together with a large number of Montefortino-type helmets and Graeco-Italic and Punic amphoras dating to the mid-3rd c. B.C. did not happen by chance: it was made possible only by a systematic search conducted by the Soprintendenza del Mare with the vital support of RPM Nautical Foundation. At the project's outset, the search area was about the size of Manhattan (c.24 square miles). Therefore, as often happens with

1 S. Tusa and J. Royal, "The landscape of the naval battle at the Egadi Islands (241 B.C.)," *JRA* 25 (2012) 11-12, 35-36 and 45-46.

this sort of project, it took time for results to begin to appear. Indeed, it was not until the fourth year (2008) that the first *in-situ* ram was located, and it took a further two years to locate the second. Thereafter the pace of discoveries quickened. At the time of writing, a total of 14 rams have been recovered from the sea in the battle zone (9 of them by R/V Hercules, 3 by Global Underwater Explorers, 2 by local fishermen).

What follows in this volume is based both on the fieldwork carried out from 2005 to 2015 when Jeffrey G. Royal served as RPM's archaeological director and on the continuing research conducted by him and several other scholars as they built upon the findings of those years. In 2017, the project entered a new phase when RPM Nautical Foundation added William Murray as historian and Peter Campbell as archaeologist. Further, a new partner, Global Underwater Explorers, has brought to the project a team of professional divers that will allow us to expand the survey area and examine previously located sites more closely. The Soprintendenza del Mare–Sicilia together with RPM Nautical Foundation and Global Underwater Explorers look forward to the ongoing seasons when the survey area will be expanded as we seek to locate the larger classes of warships and the transports that were reportedly lost in the battle. Updates on the latest discoveries may be found on the Facebook page of the Soprintendenza del Mare: <https://www.facebook.com/sopmare>, including one posted on August 21, 2018 announcing the discovery in July-August 2018 of 6 new rams.

The two authors of this Foreword thank Jeffrey Royal as well as John Humphrey, who edited the whole book and prepared the layout on behalf of the publisher, for their care and attention to bringing this manuscript to fruition. We also acknowledge with deep gratitude the devotion shown to the project and invaluable contributions made by the archaeologists, conservators and scholars of the Soprintendenza del Mare–Sicilia and by the crew, technicians and support staff of RPM Nautical Foundation, as well as the several other scholars who have contributed directly to this volume.

Palermo, Sicily

Summer of 2018

Key West, Florida

Archaeological finds as true evidence of the Egadi battle

S. Tusa

The brief history of underwater research knows few successes equal to that of the discovery of the site of the Egadi battle and of its numerous finds, of such scientific importance and of such impact on the media and the public imagination: the exact location of the Battle of the Aegadian Islands, fought on March 10 241 BC. (Fig 1- Battle of the Egadi site off Capo Grosso of Levanzo) Professional skills and passionate involvement of all the historians, archaeologists and engineers working together at an international level has been the main ingredient in the success of this discovery.



Fig. 1 - Battle of the Egadi site, Capo Grosso, Levanzo.

The research is going on giving us great satisfaction because of the adjoining data that every year we collect from the sea. During the 2018 campaign six more bronze rams were discovered and one more bronze helmet. We reached the incredible number of a total of 19 bronze rams belonging to the same battle so far found, being an exceptional scientific result.

The research carried out in the course of this latest campaign was conducted not only with the well-known collaboration of the RPM Nautical Foundation and the means offered by them (the oceanographic vessel Hercules, ROV and AUV), but also with the GUE (Global Underwater Explorers) deep sea divers; they affected an area with a strong presence of rocky emergencies on the seabed, which was chosen because it was more likely to be explored by direct immersion rather than with electronic equipment (side scan sonar and multibeam) more versatile in flat and sandy bottom areas. (Fig. 2 – Sebastiano Tusa on the Hercules vessel)



Fig. 2 - Sebastiano Tusa on the Hercules vessel.

In particular the new discoveries include two bronze rams (12 and 13) which are added to the others already recovered in the past, and some bronze helmets of the Montefortino type. The novelty of the discovery concerns both rostra and one helmet. The rostrum Egadi 12 (Fig. 3 – The Egadi 12 ram), in fact, is different from the others found so far as it has a decoration on both sides of great artistic value consisting of the handle of a sword that connects to the central blade of the rostrum and the bird's head appendages that adorn the initial part of the two upper and lower blades. Such decoration is known so far only in the rostrum of Aqualadroni that the Soprintendenza del Mare recovered some years ago in the waters of Capo Rasocolmo near Messina and today is exposed in the city of the Strait. This decoration will allow us to identify the area of origin of the rostrum thanks to an iconographic analysis that we will carry out after the restoration.

The rostrum Egadi 13 (Fig. 4 – Egadi 13 ram) is of great importance since it shows a Punic inscription on the upper sheath. This is the second rostrum with Punic inscription so far recovered (the other was the Egadi rostrum 3) and, therefore, it will be of great help to increase our knowledge of the battle when the inscription will be deciphered after the restoration.

Also the Egadi 12 ram presents an inscription on the upper sheath, but at the moment we are not able to identify its nature.

The other exceptional novelty resulting from the findings of this research campaign is constituted by one of the helmets found and recovered. (Fig. 5 – Montefortino helmet with applique). It is of the usual type known as Montefortino supplied to the Roman soldiers, but has the extremely rare peculiarity of having on its top an applied element in relief that reproduces a raised lion skin that seems to embrace the central cone that adorns its tip. It is a *unicum* in the panorama of this class of helmets. To my knowledge there is another similar helmet with a probable stylized bird applied in a similar manner on the top. We know that the praetorians, a body established more than two centuries later by Augustus, sometimes adorned their helmets with real lion skin. We



Fig. 3 - Recover of the Egadi 12 rostrum.



Fig. 4 - Egadi 13 second Punic rostrum.

had no examples of such a sign in the Roman republican era. It is likely that this decoration can be traced back to an allied city of Rome where the influence of the myth of Heracles / Hercules was strong, which, as is known, is often represented with the lion's skin on the head. It could indicate a hierarchical role in the Roman army. These are preliminary assumptions that will have to be examined and deepened during the studies that we will carry out to decode these very interesting and important signs of the past.