MARBLE TRANSPORT IN THE TIME OF THE SEVERANS:
A NEW ANALYSIS OF THE PUNTA SCIFO A SHIPWRECK
AT CROTON, ITALY

A Dissertation

by

DANTE GIULIANO BARTOLI

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2008

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Approved by:

Chair of Committee, Deborah N. Carlson
Committee Members, Christopher Konrad
                  Cemal Pulak
                  Shelley Wachsmann
Head of Department, Donny L. Hamilton

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ABSTRACT

Marble Transport in the Time of the Severans: A New Analysis of the Punta Scifo A Shipwreck at Croton, Italy.

(August 2008)

Dante Giuliano Bartoli, B.A., Università Statale degli Studi di Milano
Chair of Advisory Committee: Dr. Deborah N. Carlson

Five ancient shipwrecks have been found in the sea off Croton, in southern Italy, each carrying a marble cargo composed of massive blocks, column shafts, and smaller artifacts. Three of them were located while surveying the seafloor with a multibeam sonar, and the remaining two with the help of divers, in the summers of 2005 and 2006. Two of the marble carriers are located in the bay of Punta Scifo and, therefore, are identified as the Punta Scifo A and Punta Scifo B shipwrecks, the remaining three take their names from the closest promontories: Punta Cicala, Capo Cimiti, and Capo Bianco.

The Punta Scifo A shipwreck was chosen as the main focus of this work because it contains a unique assemblage of marble artifacts; including 13 basins, 15 stands decorated with lions’ paws, 16 column shafts, 14 blocks, 6 statue pedestals, and one statuette of Eros and Psyche. Moreover, because the original discovery dates back to 1908, and in 1915 salvors raised 150 tons of marble artifacts, much information was in danger of being lost. Consular inscriptions on the Punta Scifo A’s marble blocks and
column shafts date the shipwreck to the early third century A.D. The merchantman was ca. 30 m long and 10 m wide, with a cargo of marble items weighting ca. 200 tons.

The merchantman was loaded with its marble cargo in Asia Minor: all the items carried on board came from the quarries of Proconnesus and Docimium. The most likely point of departure was either Epheus or Miletus. While sailing toward the Strait of Messina, it is likely that a *Grecale* or *Levante* storm broke, and the helmsman was forced to look for shelter in the protected bay of Punta Scifo. Due to a change in wind direction a southerly *Scirocco* storm caused the ship to sink. Since the entire coastline south of Croton is totally unprotected to the south, there was no way for the crew to save their ship. Where the Punta Scifo A merchantman was destined remains unknown, although Rome appears to be a likely candidate.
To Cesare and Gabriella Bartoli,
for showing me Croton and its sea
This research project would not have been possible without the support of many passionate people—and a cat. First and foremost, I wish to thank my parents for their boundless financial and moral support during my years of graduate study at Texas A&M University. Heartfelt thanks also go to my brother Andrea, sisters Giulia and Serena, cousin Riccardo, and to Lilia Campana for their help before, during, and after each season of field work in Calabria.

Drs. Annalisa Zarattini and Francesco Prosperetti made possible my two field seasons of research in Croton. Without their interest, scientific coordination, and in-field supervision it would not have been possible to achieve all the research during those two seasons in Italy. It was also a great pleasure having Dr. Roberto Mazzoni in the field, both as a dive buddy and as a fellow archaeologist. He made our daily working operations efficient and productive.

I am grateful to the Institute of Nautical Archaeology (INA), RPM Nautical Foundation, and the Center for Maritime Archaeology and Conservation (CMAC) at Texas A&M University for covering the project’s expenses and providing much needed logistical support. In particular, RPM Nautical Foundation provided its two research ships Juno and Hercules, along with the technical skills to interpret the data collected in 2005. Special thanks go to professors Donny Hamilton, Kevin Crisman, and Filipe Viera de Castro for their unwavering support of my research in Italy since its very beginnings in 2003.
I am deeply indebted to Dr. Deborah Carlson for her careful review and constructive criticism of each version of my dissertation manuscript. My dissertation and I have benefited from this healthy exchange; on more than one occasion, her insightful comments have impelled me to modify my point of view or reconsider my theories under a new light. Dr. Shelley Wachsmann contributed to substantially improve the style and readability of the final version of this manuscript, while Dr. Cemal Pulak provided valued suggestions concerning 16th-century Turkish nautical charts, and Dr. Christoph Konrad greatly helped to improve the portion of this work dealing with Roman history.

Special thanks go to my good friends Dr. Domenico Marino—for his detailed, insightful, and always enriching suggestions concerning the maritime history of Croton—and Luigi Cantafora—for sharing his memories of the underwater sites south of Croton. Dr. Damiano Milone provided on-site support with the loan of his barge to the expedition in 2006, and Dr. Giovanni Albini of La Fondiaria Insurance Company provided free coverage to all the expedition team members. Mr. Franco Colosimo, INA friend and supporter since the time of the Porticello excavation, opened his house in Calabria to all the team members, and made us understand what southern Italian hospitality means. Thanks also to Prof. Carlo Beltrame (Università Ca’ Foscari in Venice), Dr. Ayse Atauz, and Brett Phaneuf (ProMare Foundation), for their enthusiastic support of a new research season in Croton. I am hopeful that the work begun in this dissertation study will continue, perhaps as early as the summer of 2008.

Finally, I wish to thank my dear friends and colleagues, Alexis Catsambis, Sam Lin, Mark Polzer, and Wendy Van Duivenvoorde for the quality time we spent together
in the Nautical Archaeological Program and for all their support and companionship.

And last, but not least, a special thought goes out to Pallino, the sweet house cat who kept me company in College Station during the long, hot summer of 2007 when much of this dissertation was written.
NOMENCLATURE

Artifacts:

ABA    Attic base
BLC    Block
COL    Column shaft
HPL    High pedestal decorated with lions’ paws
ICA    Ionic capital
LAB    Labrum
LPL    Low pedestal decorated with lions’ paws
MOB    Mobile artifact
MPL    Medium pedestal decorated with lions’ paws
SLB    Slab
STA    Statuette
STP    Statue Pedestal

The items mentioned in the Catalog of the Artifacts have been recorded using a system of three letters explained above, followed by a catalog number. Therefore, “BLC 1” identifies the first block located at Croton, “HPL 2” the second high pedestal decorated with lions’ paws located at the nautical museum of Capo Colonna, and so on. Every item with a catalog number is described and illustrated in Appendix 1.
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CHAPTER I
INTRODUCTION

The research that comprises this dissertation began in the summer of 2005, when the Archaeological and Regional Superintendents for the Artistic Heritage of Calabria, Drs. Annalisa Zarattini and Francesco Prosperetti, granted the Institute of Nautical Archaeology (INA) a permit to survey the seafloor south of Croton. The RPM Nautical Foundation (RPM) supported the project by making available its two research vessels Juno and Hercules, then stationed in Malta, along with crew and technicians to collect, process, and interpret multibeam and side-scan sonar data. Dr. Annalisa Zarattini, Dr. Jeffrey Royal, and I were co-directors of the research for the Soprintendenza ai Beni Archeologici della Calabria (local branch of the Italian Fine Arts Bureau), RPM, and INA, respectively. The main goal of the field work was to create an accurate archaeological map of the seafloor south of Croton, between 5 and 75 m depth. SCUBA divers visually inspected the targets determined by the ships’ surveying equipment up to a depth of 40 m, and a remotely operated vehicle (ROV) was employed to check the nature of deeper sites. The first season was so successful, revealing four marble cargoes of probable Roman Imperial date, named Punta Scifo A, Punta Scifo B, Punta Cicala, and Capo Cimiti, that a second summer of research was planned for the following year.

This dissertation follows the style of the American Journal of Archaeology.
In 2006 a smaller team, composed of the Soprintendenza ai Beni Archeologici della Calabria and INA, continued working in the sea off Croton, locating a fifth marble carrier, named the Capo Bianco shipwreck for the nearby promontory and dating to the Late Roman period. All of these sites are located in shallow water, at no more than 8 m of depth. To date, the five marble carriers lost in such a confined area make Croton the location with the highest concentration of ancient naves lapidariae\(^1\) known in the entire Mediterranean; only 15.6 km separates the ships sunk off Capo Bianco and Punta Cicala.

Having spent the winter months after each field season investigating in libraries and archives both in the United States and Italy, I learned that all of the sites were already known to the Italian Fine Arts Bureau. One of them, Punta Scifo A, had been discovered in 1908 and heavily salvaged in 1915, when ca. 150 tons of marble were raised from the seafloor. The original reports of the discovery, which are still available in the archaeological museum of Reggio Calabria, reveal the history of the site from the beginning of the 20\(^{th}\) century, and describe also how many artifacts were brought to the surface at that time.

A search for these recovered items in the territory of Croton and surrounding areas revealed that some of the artifacts from the Punta Scifo A shipwreck were located at local museums in Croton and Capo Colonna, some had been reused to build a modern monument to Ulysses in Croton’s “Antonio Caputi” public square, a small portion was moved to the town of Corazzo 30 km north-west of Croton, and one large basin was sent

\(^1\) Naves lapidariae and naves marmorum are the expressions Petronius (Sat. 117) and Pliny the Elder (HN 36.1.2-3) use, literally meaning “stone ships,” and “ships of marbles.” See Chapter IV, pp. 155-7 for more information.
to Tarentum. After locating these artifacts, I recorded their dimensions, and the data have become part of a new, comprehensive catalog presented in Appendix 1. The original documents from the archives are transcribed in Appendix 2, and relevant Greek and Latin sources in Appendix 3.

Since the site had already been disturbed and much archaeological evidence was in danger of being permanently lost, I chose to focus my research on the Punta Scifo A wreck site. I thought it necessary to preserve as much data as possible, reorganize them, and try to reconstruct the ship and its cargo as they were at the time of sinking. In doing so, I have analyzed the physical settings of Croton in order to understand what kind of natural factors might have caused these five ships to be lost along this coastline, and why Croton’s harbor represented an important resting point for ancient ships and sailors. A general review of the four other marble sites from Croton, the Roman Imperial system of organized quarry exploitation, along with the seaborne transportation of heavy elements and various parallels are also presented. Appendix 4 is dedicated to Diocletian’s *Edict on Maximum Prices*, which provides the cost of 19 marble varieties in A.D. 301, and Appendix 5 describes the inscriptions found on many ancient quarried items.

Time and funding in 2005 and 2006 allowed only initial, cursory work at Croton. It is important, however, to analyze the data collected to develop more informed hypotheses and questions to guide further research. Punta Scifo A represents one of the most luxurious marble cargoes ever found in the Mediterranean.
The Natural Environment of Croton: Present and Past

Croton is located on the Ionian coast of the region that the Romans called *Lucania et Bruttii*. The Byzantine Greeks, in the middle of the eighth century A.D., renamed it Calabria in order to preserve, at least nominally, the right to claim possession of southern Apulia (then called Calabria), which they had just lost to Lombard invaders (Fig. 1).

Today, Croton is a city with a population of slightly less than 60,000 inhabitants. The city is home to a few chemical factories, and surrounded by a small plain (240 km²) locally known as *Il Marchesato*. These fields are sowed mostly with grain and typical Mediterranean crops such as grapevines, olive, fig, and citrus. The city’s prosperity is connected directly to its harbor, the only good natural basin on the route between Tarentum and the Strait of Messina, and to the ever-growing number of tourists, attracted by the natural beauty of the local Natural Marine Preserve. All of the marble shipwrecks that are the object of this study are located inside the Marine Preserve area, between the promontories of Capo Colonna, Capo Cimiti, and Capo Rizzuto (Fig. 2).

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2 Brasacchio 1977, 2:113. Pliny the Elder (*HN* 3.11.99) called Calabria the area surrounding the city of Brundisium in Apulia. Strabo (6.3.1) describes the region to the north-east of Metapontum as “country of the Calabri.” *Bruttium*, the placename used in modern literature, is actually a Latin neologism which was nonexistent in antiquity. See, for instance, Livy, 42.3.1-11 (“in Bruttios”); Livy 27.25.11 (“Locros in Bruttii”); and Plin. *HN* 3.5.71 (“ager Lucanus Bruttiusque”). Even if historically incorrect, it will be used in this work because it has become widely accepted in English-speaking countries. Paoletti 1994, 467-71 offers a thoughtful review concerning the origin of this toponym.

3 Domenico 2002, 47. The exact number of local residents, according to Domenico’s data, amounts to 59,638 in the city. Including the 27 communes in the province of Croton raises the number of local residents to 117,547.

4 Literally “Land of the Marquis” since in A.D. 1390 Niccolo’ Ruffo became Marquis of Croton and the entire territory surrounding the city formed until the 1950s a huge estate belonging to a handful of local aristocratic families. (Severino 1988, 31).
Fig. 1. Southern Italy was divided into four regions during the time of Augustus. In the first century B.C. Calabria was the southernmost tip of Apulia. Modern Calabria was then called the “Land of the Lucanians and Bruttians,” and now includes the southern half of the third Augustan region (Map: D. Bartoli).
Fig. 2. Location of the marble carriers from Croton. They are all located within the limits of the Marine Preserve Area “Capo Rizzuto.” (Map: D. Bartoli).

Capo Colonna, the promontory that the Greeks called Δακίνιον and the Romans Laciniun, represents a dangerous turning point for sailing ships, the beginning of a series of bays protected from the wind, and the natural end of the Gulf of Tarentum. In antiquity, it was one of those famous promontories, like Sounion in Attica and Malea in
the Peloponnese, which sailors had to pass during their voyages. Sailors coming from the East, having reached Santa Maria di Leuca in Apulia (known in antiquity as ἄκρα Ἰαπυγία or Promontorium Iapigium) and crossed the Gulf of Tarentum, headed towards Capo Colonna (Fig. 3). On the tip of this cape, isolated on the long promontory that stretches into the Ionian Sea, lies the temple of Hera, the main goddess of the local pantheon. A solitary Doric column of Hera’s temple still stands on the promontory and gives it its present name of Capo Colonna, or “Cape of the Column” (Fig. 4).

A general review of the geographical location of both Croton and the surrounding province of Calabria will be useful to better understand the physical setting with which ancient seafarers had to cope, what has changed over time, and what natural factors caused so many ships to be lost south of Capo Colonna, only 9 km south of the well-sheltered harbor of Croton. Petrographic analyses of the marble cargoes suggest that the Punta Scifo A and Capo Cimiti shipwrecks came from the East, and the same conclusion may be drawn for the Punta Scifo B merchantman.

If an Eastern origin is correct, then the vessels’ captains must have seen the harbor on their starboard side before reaching Capo Colonna. Why, then, would they have chosen not to stop in the harbor but instead make the ill-fated decision of looking for shelter behind stormy Capo Colonna? In the following pages, I will try to provide an answer, starting with a reconstruction of the ancient environment of Croton and modern Calabria, which has changed considerably during the last 25 centuries. The natural features sailors saw in Roman times differed significantly from the present.
Fig. 3. Santa Maria di Leuca, the Gulf of Tarentum, Croton, and Capo Colonna. The strategic location of Capo Colonna on the route to the Strait of Messina is evident. (Map: D. Bartoli).
Calabria: Land with a Maritime Vocation?

The Two Coastlines and Their Cultural Prominence

Located at the southernmost tip of the boot of Italy, Calabria is a peculiar strip of land, forming a long and narrow peninsula closed to the north by the Pollino relief (2,271 m high). It is washed by the Ionian Sea on its eastern side and by the Tyrrhenian Sea on its western flank, which join their waters in the Strait of Messina. Sicily is only half-an-hour away by ferry-boat, and Messina is clearly visible from the seashore of Rhegium (modern Reggio Calabria).

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5 Plut. Pomp. 24.6; App. B. Civ. 5.14.133.
Calabria is 240 km long and reaches its maximum width of 100 km between Marina di Fuscaldo and Punta Alice, while the minimum width of 34 km is found between Pizzo and the railroad station of Montauro (Fig. 5). The distance coast-to-coast is so short here that Aristotle and Strabo calculated the Gulfs of Squillace and Lamezia were only 160 stadia or half a day’s journey apart. If the region, on one hand, is extremely narrow in width, the length of its coastline is, on the other hand, truly remarkable. With 742 km of waterfront, Calabria boasts the most developed coastline in Italy, corresponding to 16% of the national total – islands excluded. With its elongated shape, its north-south direction leading to the Strait, and its west-east protrusion extending into the Ionian Sea towards the East, the major role that Calabria played throughout its history, as a bridge connecting the two halves of the Mediterranean, becomes evident. Sailors coming from the Levant, especially from the regions of modern Turkey and Greece, had to circumnavigate its coasts in order to reach the toe of Italy, sail past it, and make their course for the Bay of Naples, Sardinia, the metal ores of Etruria, southern France or Spain.

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8 Arist. Pol. 7.1329b; Strabo 6.1.4. See also Gras 1987, 214-5. One Greek stadion is equal to 184.7 m, and therefore 160 stadia come close (29.5 km) to the 34 km measured at present. (Southern Maryland Online 2008, http://bible.somd.com/weights.shtml). An average walker can cover ca. 5 km / hour by foot. Therefore, approximately seven hours are needed to go from the Ionian to the Tyrrhenian coast of Calabria.
9 Principe 1974, p.8, n.9.
Fig. 5. Minimum and maximum distances, in kilometers, from coast to coast and north to south, in Calabria. (D. Bartoli).
The dangers seafarers had to endure to survive the stormy Strait are well-attested since Homeric times. Scylla and Charybdis, monsters ready to snatch sailors from their ships and swallow them in a lethal whirlpool, became mythical representations of this treacherous waterway.\footnote{Gianfrotta 2005, 143; Hom. \textit{Od.} 12, 73-126.} It is also not a coincidence that the ancient god of the winds, Aeolus, was supposed to live in the islands that still bear his name, a few miles to the northwest of Rhegium and Messina.\footnote{Gianfrotta 2005, 143; Hom. \textit{Od.} 10, 1-4.} Figure 6 shows the two sides of the Strait, marking the approximate location of Scylla (which still gives its name to the modern town on the Calabrian shore), and Charybdis.

![Fig. 6. The two sides of the Strait seen from the town of Scilla, in Calabria. The two arrows mark the narrowest point of the waterway, and the approximate location of the mythical monsters of Scylla and Charybdis. (Photo: D. Bartoli).](image)
It is, therefore, easy to understand why the earliest known Greek colony founded on Calabrian soil was Rhegium (730 B.C.), a necessary stronghold to keep the waterway safe and open to traders. The other city-states to follow, Sybaris in 720-710 B.C., Croton at almost the same time (720-710 B.C.), Caulonia at the end of the eighth century B.C., and Locri Epizephyri between 675-650 B.C., were founded along the Ionian coastline, facing East (Fig. 7). The early colonists may have been influenced to settle down and make a living with access to good water sources nearby, cultivable farmland, and profitable trading routes. The daughter colonies on the Tyrrhenian side came later in time and were founded to grant control of the two sides of Calabria to the cities that, already well-established on the Ionian coast, were expanding their territorial grasp over the rest of the region. Even though the coastal plains represent only 10% of the Calabrian territory, their relevance for the history of Calabria is significant. The longest rivers flow through them providing the best farmland of the region, and they are located close to the sea, whence all Greek colonists originally came.

The inner part of Calabria was left to the local indigenous inhabitants, Lucanians and Bruttians, who, driven away from the seashore, found shelter in the mountains of the interior. The Greek settlers were able to keep the native Italic populations at bay for three and a half centuries, but they were never able to subjugate them completely.

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14 Gioia Tauro (515 km²) is the largest plain, followed by those of Sybaris (450 km²), Croton (240 km²), Sant'Eufemia (180 km²), Locri (110 km²) and Scalea (75 km²). Data from Principe 1974, p.16.
Fig. 7. Greek and Roman cities of Calabria, along with the most important promontories, the main rivers and the ancient road system. The city of Consentia, in the mountains, is an indigenous foundation; Villa S. Giovanni, Gòia Tauro, and Lamezia Terme are modern towns. (D. Bartoli).
The free, rebellious populations of the mountains grew more and more organized over time, and from the fourth century B.C. onwards they began conquering one Greek city-state after the other. Due to the historical relevance of the Greco-Roman coastal cities, it is easily forgotten that the mountains of the interior represented a fundamental backbone for their economies, especially during the long months of *mare clausum* (October to April), when ships were forced into the harbors and contacts with the external world were less frequent. As rich as it was, and still is, in copper, iron, and a few silver ores, timber and pitch, good pastures, and indigenous labor, the interior of Bruttium had a remarkable economic influence on the well-being of the coastal settlements. As will be clear, knowledge of the history of the territory as a whole is important for understanding what happened at sea, and for placing these five shipwrecks in an appropriate context.

*The Forgotten Mountains of the Interior*

High mountains covered with lush vegetation dominate the entire interior of Bruttium, which has nothing in common with the dry coastline, especially on the Ionian side. The *Pollino* mountain in the northern region (2,271 m), the *Sila* relief (1,928 m) and the *Paola* coastal chain at its center (1,541 m), along with the *Serre* (1,423 m), *Poro* (719 m), and *Aspromonte* (1,955 m) mountains in the south, give the region its craggy appearance and represent, along with lower hills, circa 90% of the entire Calabrian

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15 Casson 1995, 270. Veg. Mil. 4.39 points out that the favorable season started May 27th and lasted until September 14th, even if it was possible to leave the harbors from March 10th and protract navigation until November 10th.
territory. These peaks would also have been visible from a great distance at sea, providing a landmark by which to navigate (Fig. 8).16 Timber coming from the Calabrian forests represented an enormous reserve of building material for local shipyards. Rivers carried logs downstream to harbors and eventually to the sea. Pitch, the *pix brutitia* so famous in Roman times, was particularly useful for waterproofing ships’ hulls, for coating amphoras, for medical purposes, and even as a depilatory for men.17 The maritime colonies represented trade terminals for these natural resources, which provided an economic backbone of prosperity for the Greek and Roman cities.

Virgil twice describes the mountains of Sila using the adjectives *ingens* (vast, mighty) and *magna* (great), to give an idea of their size and extension.18 Dionysius of Halicarnassus describes the forests of Calabria as so rich in fir, black poplar, pine, beech, oak, and ash trees that their “densely-intertwined branches keep the mountain in shadow throughout the whole day.”19 He was also well aware of their relevance for the activity of ancient shipyards, which were presumably located on the coast. Dionysius indeed wrote of the mountains’ timber:

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16 Principe 1974, p.16. The formula for computing theoretical sighting distances at sea is 
\[ D = 2.2 (\sqrt{h} + \sqrt{H}) \] 
where D is the distance, and h and H are the respective altitudes of the observer’s height and the observed height. From the deck of a ship, at a height of 3 m above water's surface, *in theory* a sailor could see Calabria’s Pollino mountain (2,271 m) from a distance of 108 nautical miles (200 km), and the mountains of Sila (1,928 m) from 100 nautical miles (185 km). However, to see these long distances from sea level is quite difficult in the Mediterranean due to haze at sea, Saharan dust, and wind-blow dust held in suspension by steady high pressure systems in summer. Average visibility is typically restricted to less than 11 nautical miles, often less, and only rarely is it sufficiently clear to see 30 nautical miles. In optimal conditions, then, Calabria’s mountains were visible from no more than 30 nautical miles (ca. 55 km) at sea, and often much less (D. Davis, personal communication; Bowditch 2002, 56-7).


Fig. 8. Topographical map of Calabria, showing mountains, plains and main rivers. (Map: D. Bartoli).
that which grows nearest the sea and rivers is felled at the root and taken
down in full lengths to the nearest harbors, sufficient in quantity to serve
all of Italy for shipbuilding and the construction of houses. That which
grows inland from the sea and remote from rivers is cut up into sections
for the making of oars, poles and all kinds of domestic implements and
equipment, and is carried out on men’s shoulders.\textsuperscript{20}

In another passage, Dionysius lets us know that Calabria was a source of

the most fragrant and sweetest pitch known to us, the kind called Bruttian,

from the farming of which the Roman people receive large revenues every

year.\textsuperscript{21}

The importance of pitch production is better understood by considering the
testimony of Cato the Elder, who described agriculture as “more entertaining than
profitable,” while his real sources of income were, among others, “pitch factories and
land with natural pasture and forests, all of which brought him large profits and could
not, in his own words, be ruined by Jupiter.”\textsuperscript{22} It is noteworthy that the very name given
today to a part of these mountains, \textit{Sila}, may have either a Greek or Latin origin: \textit{ξύλα}
meaning “timber / trees”, and \textit{silva} “thick uncultivated forest.”\textsuperscript{23}

\textsuperscript{20} Dion. Hal. \textit{Ant. Rom.} 20.15.2.
\textsuperscript{21} Dion. Hal. \textit{Ant. Rom.} 20.15.2.
\textsuperscript{22} Plut. \textit{Vit. Cat. Mai.} 21.5.
\textsuperscript{23} Scheid 1993, 19.
The relevance of the mountains gained importance after the fall of the Roman Empire, when local inhabitants abandoned the coast, which had become increasingly unsafe due to the reappearance of piracy, and withdrew to the more easily defensible peaks of the interior. The Gothic Wars, during Justinian’s reign (A.D. 527-565), struck a mortal blow to the economy of Calabria’s coastal cities, which had been ravaged by enemy armies for decades. Significant exceptions were Rhegium and Croton, whose harbors were used extensively by the Byzantines to retain communication between the two sides of the Empire. The coastal installations of the deserted Greek colonies were mostly abandoned and disappeared between the seventh and eighth centuries A.D., when Calabria became similar to a fortress isolated from the external world. As Catherine Delano Smith notes, harbor installations represent some of the most fragile human constructions, especially when they are port-canals or nautical installations built, in the absence of a natural bay open to the sea, “at the meeting point of two of the most unstable of all the geomorphological environments, the shore and the river channel.”

This was probably the situation for Calabria in Greek and Roman times, before local inhabitants fled its coastline and abandoned maritime facilities, which eventually silted up and disappeared from view.

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26 Delano Smith 1979, 327.
Deepening our analysis of Calabria’s natural features in antiquity, it is safe to say that if Pliny the Elder could visit the Ionian coasts of Calabria today, he would want to rewrite parts of the third book of his Historia Naturalis. In a passage of particular importance for the study of the ancient Calabrian landscape, he mentions flumina innumera “rivers beyond count,” five of which were amnes navigabiles, “navigable waterways.”27 The word amnis, as opposed to flumen, is interesting in this context, since it implies a large and fast-flowing water course. Pliny also describes five islands that in the first century A.D. formed a small archipelago off Croton, as well as a promontory named Cocynthum, north of the Greek city of Caulonia. Both the islands and the promontory are no longer visible. What makes their disappearance even more dramatic is that Pliny described the Promontorium Cocynthum (Punta Stilo nowadays represents its only surviving portion) as longissimum Italiae, “the longest in Italy,” and each island off Croton had its own name and exact location.28 Ten Roman miles, or circa 15.2 km out from the Promontorium Lacinium (modern Capo Colonna) were located Dioscoron and Calypses, and close to them Tyris, Eranusa, and Meloessa.29

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28 Pliny, *HN* 3.10.96.
29 Pliny, *HN* 3.10.96. It is not totally certain how long a Roman mile was. Based on the distances measured between surviving Roman milestones it appears that 1 Roman mile equals to 1,520 m. Rowlett (2002, 26 August).
Pseudo-Scylax, an anonymous geographer of the late fourth century B.C. who wrote a detailed description of the coasts of southern Italy, noted that from Rhegium the cities are the following: Locri, Caulonia, Croton, the Lacinium Promontory sacred to Hera, and the island of Calypso, in which Odysseus dwelt with Calypso.\textsuperscript{30}

Two of these islands are clearly visible, along with the sunken promontory, in the detailed nautical charts that Piri Reis, the seafarer and geographer working at the court of Suleiman the Magnificent, drew in A.D. 1521-1525 (Fig. 9).\textsuperscript{31}

![Image](image.png)

Fig. 9. Detail of Piri Reis’ 1521 nautical chart showing the coastline between Capo Colonna and Le Castella. (Image after Ökte 1988, 1034).

\textsuperscript{30} Ps. Skyl. 14. See also Peretti 1979, 1-11, 507.
\textsuperscript{31} Ökte 1988, 3:1030-4.
Considering that Piri Reis was the nephew of Kemal Reis, a famous Turkish seafarer, that he spent many years of his youth sailing the Mediterranean as a corsair, and that he later became an admiral of the Ottoman fleet, there is little doubt that the nautical charts he made had a practical purpose. The springs along the coastline where sailors could get fresh water are carefully marked, along with the landmarks visible from the sea, the cities close to the coast, the rivers, the dangerous shoals, and even the harbor entrances. The written commentary that accompanies each map provides detailed information about the distances from place to place, the local toponyms, and short notes and remarks that Piri Reis jotted down while visiting these shores.

A quick comparison of Figures 2 and 9 gives a good idea of the accuracy of Piri Reis' 16th-century map. The promontories of Capo Colonna, Capo Cimiti, Capo Bianco, Capo Rizzuto, and Le Castella are well represented. Two fresh-water springs are visible, two rivers, and two columns still standing on the tip of Capo Colonna. Today only one Doric column survives; its companion probably collapsed during an earthquake in 1638. Two islands are clearly visible in front of Le Castella, and in the written commentary Piri Reis adds:

Atop it [the cape] is a castle called Kastalu. There is a cove on either side of this castle and these coves are safe havens for small vessels. A mile opposite there are two small islets. Ships can pass between the islets and

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32 Afetinan 1975, 9-27.
33 Galli, Ruga, Scionti, and Spadea 2006, 446, fig. 2. See also Chapter II, p. 42, n. 17.
the castle but the sea around the islets is rocky and for that reason there is no shelter. The place is foul.\textsuperscript{34}

Piri Reis provides interesting details concerning the shoals of Capo Bianco, where two different shipwrecks are located: the marble carrier that takes its name from the cape, and a 17\textsuperscript{th}- or 18\textsuperscript{th}-century shipwreck, from which an iron cannon is still visible along with some more heavily-concreted artifacts. In his description, Piri Reis writes:

\begin{quote}
The aforementioned Kavu Biyanko is a low, white promontory. Out from the cape, a shoal that they call Şaykadi Kavu Biyanko extends for three miles or so into the sea. A galley may pass between these shallows and the Rumelian shore.\textsuperscript{35}
\end{quote}

It is noteworthy that the Turkish toponyms are taken literally from Italian: Kastalu and Kavu Biyanko do not need any explanation, the word “Şaykadi” is simply translated from the Italian “Secca di”, meaning “Shoal of.” The Ottoman seafarer must have visited these places, spoken with local guides, and taken detailed notes of what they told him. At his time, two of Pliny’s five islands were still visible, and the shoals of Capo Bianco probably represented the remains of the other islets. Indeed, they are located at a distance of 15 km from Capo Colonna, corresponding to the 10 Roman miles Pliny cites.

\textsuperscript{34} Ökte 1988, 1033.  
\textsuperscript{35} Ökte 1988, 1033.
As a last example of Piri Reis’ accuracy, so important for reconstructing the maritime topography of Croton, let us consider the harbor of the city as he saw it (Fig. 10). The details are staggering; even the little church of San Nicola is represented on a tiny island that now has become the terminus of the southern breakwater, along with some quays for small vessels and bigger docks for larger ships.

Fig. 10. The city of Croton with its castle, harbor, and islets at the entrance as they appear on Piri Reis’ nautical chart. (Image after Ökte 1988, 1030).
The islands facing Le Castella are still visible in Battista Agnese’s *Atlante Nautico*, published in Venice in 1553, and are described, for the last time, in a Greek portolano written by an anonymous sailor sometime in the 16th century. The language uses a combination of Greek and Venetian nautical terms; it is likely this unknown writer had visited the coast of Calabria during his trips between the former Byzantine lands and Venice:

Nearby Capo Rizzuto (Κάβον Πεσούτο), two miles out in the open sea (άλαργον), there are two shoals (δύο σεκιαιζ). [...] And moving from Capo Rizzuto after six miles you can find the fortress called Le Castella (την Καστελο) which is separated from the mainland and comes in and out with the sea of Levante as happens in Egripos. And two miles in the open sea facing Le Castella there are two rocks (σκόγια). This portolano records both Capo Bianco’s shoals, nearby Capo Rizzuto, and the islands facing Le Castella, which are now called σκόγια, probably a transliteration of the Italian “scogli” meaning “rocks.” Similarly, “secche” has become σεκιαιζ (“shoals”), and “al largo” ἀλαργον (“in the open sea”). Assuming that this portolano is slightly later than Piri Reis’ maps, it is possible to think that a few decades after the Ottoman maps were drawn, the small islands had already begun disappearing under water, and they were more similar to rocks washed by the waves than to inhabitable land. The fact that the fortress of Le Castella “comes in and out” with the easterly wind of Levante as

36 Riillo, Villirillo, and Berardi 2002, 22.
37 Delatte 1947, X-XXII, 320-34.
38 Delatte 1947, 330.
happens in the city of Egripo (modern Petriti in Corfu),\(^{39}\) can be explained by examining a photo of the castle itself (Fig. 11). A thin strip of land on a small isthmus connects it to the mainland. Before recent consolidation works, however, the isthmus had disappeared below sea level as can be seen in an old aerial picture published by Giulio Schmiedt in 1975 (Fig. 12).\(^{40}\)

![Fig. 11. The fortress of Le Castella as it appears today, on a little island connected to the mainland by a thin isthmus. (Photo: D. Bartoli).](image)


\(^{40}\) Schmiedt 1975, 57, fig. 23.
Fig. 12. Aerial view of Le Castella, published in 1975. The amount of erosion on the seafront is evident; recent consolidation efforts may have spared the island its potential fate of slipping into the ocean, as was likely only a few decades ago. (Image after Schmiedt 1975, 57, fig. 23).

It is plausible to think that in the late 16th century the submergence process had already started, and that the isthmus appeared and disappeared according to the winds and sea conditions. It must be remembered that Corfu is the closest Greek island to Italy, and from there ships sailed into the Otranto channel to reach Apulia, Santa Maria di Leuca, and Croton. This anonymous Greek captain of the 16th century, familiar with the sea conditions around both Croton and Corfu, drew a comparison between the two places.

The five Plinian islands, as well as a promontory, appear repeatedly on several maps of southern Italy until A.D. 1736, but these cartographic representations should not
be trusted.\textsuperscript{41} Their legends explain that they are erudite topographical reconstructions of Magna Graecia\textsuperscript{42} based on the texts of ancient writers and, therefore, do not represent contemporary reality. Thus after the 16\textsuperscript{th} century, no there are no more known accounts or depictions that can be considered reliable.

\textit{Archaeological Data}

Underwater surveys and archaeological excavations have shown that both the ancient account of Pliny and popular legends are true. Thanks to the joint efforts of a team of Italian and American researchers, a rich set of data is now available to reconstruct the natural environment that characterized the Ionian coast of Calabria during the Classical Age.\textsuperscript{43} Modern nautical charts show a series of

\textsuperscript{41} A collection of these maps can be found in Riillo, Villirillo, and Berardi 2002, 22-45.

\textsuperscript{42} The expression \textit{Magna Graecia} identifies that cultural area of southern Italy ideally encompassed inside a large triangle with the cities of Cumae, Tarentum, and Rhegium representing its three vertices. The Latin expression \textit{Magna Graecia}, which is probably better known and more widespread than the original Greek \( \text{Μεγάλη Ελλάς} \), is commonly translated in English as Great Greece. The form Greater Greece, sometimes found in late Roman sources as \textit{Maior Graecia} (Just. Epit. 20.2.2; Val. Max. 8.7.2; Ov. Fast. 4.64), should be rejected as misleading; both of the earlier versions did not have -grammatically speaking- a comparative but a positive value. Compared to the word ‘\textit{Ιταλία}, which covers the entire Italian peninsula including the areas where local indigenous inhabitants lived, \( \text{Μεγάλη Ελλάς} \) or \textit{Magna Graecia} refers only to the regions fully colonized by Greeks, which shared the same language, culture, and political institutions with the rest of the Greek world (Musti 1994, 85). Consequently, large areas of the mountainous inner country where colonies were never founded remained in the hands of the native Italic populations, at the fringes of the Mediterranean world.

It must also be remarked that Sicily was perceived, even though almost entirely Greek (Carthaginians were present on the western third of the island) and deeply involved in crucial events of Greek history, as a separate region which followed in many ways its own historical path. Along with the simple fact that Sicily is an island, both ancient and modern scholars did not include it within \textit{Magna Graecia}’s limits, and, with the exception of a controversial passage from Strabo (6.2), it is common place to talk of Great Greece and Sicily.

\textsuperscript{43} Joseph Carter, Jonathan Morter, Roberto Spadea, Domenico Marino, and Luigi Cantafora have been particularly active in Croton; Maria Teresa Iannelli, Stefano Mariottini, and Jean-Daniel Stanley in Caulonia.
four small shoals facing Capo Bianco and Le Castella in the exact same area where, according to Pliny and Piri Reis, the ancient islands were located. In 1935 and 1964, local inhabitants saw the remains of columns in the waters of Caulonia, generating sufficient reason to suspect that the historical accounts were true.\textsuperscript{44}

The underwater surveys initiated 20 years ago in Caulonia revealed the remains of buildings dating to 480-470 B.C. at a depth of 3.5-6 m.\textsuperscript{45} Forty column drums, 93 building blocks, two mooring bitts, two anchor stocks, two sounding weights, iron nail concretions, several amphora sherds, and a fragment of a bronze statue have been found in the vicinity of the sunken \textit{Cocynthum} promontory.\textsuperscript{46} Moreover, the discovery in Le Castella of obsidian, pottery, and a submerged prehistoric dwelling some 4-5 m below the surface, as well as ancient Greek quarries, water cisterns, dock remains with mooring bitts and stairs at depths of 6-7 m testify to significant erosion and tectonic changes that have transformed these two ancient terrestrial settlement areas.\textsuperscript{47} During the summer of 2006, on a dive ca. 1 km offshore of Le Castella, at a depth of 6 m on a shoal close to land, I observed two terracotta slabs, probably roof tiles that do not appear to be connected with a shipwreck, wedged between rocks.\textsuperscript{48} Luigi Cantafora, an experienced diver from

\textsuperscript{44}Iannelli, Lena and Mariottini 1993, 1.
\textsuperscript{45}An Ionic column drum dates the archaeological complex. Its upper end is indeed decorated with palmettes and lotus flowers stylistically similar to a column from the temple of \textit{contrada Marasa}’ in Locri Epizephyri, dated to 480-470 B.C. (Iannelli, Lena and Mariottini 1993, 10).
\textsuperscript{46}Medaglia 2002, 163-85.
\textsuperscript{47}Marino 1992, 28 n. 30; Marino 1996a, 573; Marino 1996b, 17-38. The blocks and drums still at the quarries match the dimensions of the building elements used in the Doric temple of Capo Colonna, whose construction dates between the sixth and fourth centuries B.C. (Marino 1996b, 27).
\textsuperscript{48}One slab measures 0.69 m in length, 0.062 m in thickness, and lies at a depth of 5.8 m. The second slab measures 0.44 x 0.45 m, is 0.06 m thick, and has a rectangular notch on its upper left corner measuring 0.05 x 0.12 m. It is located at a depth of 6.3 m.
Croton who discovered three of the five marble carriers under discussion here, reported seeing some stone walls in the middle of the sea, at a distance of 1.6 km from the castle.\textsuperscript{49}

Comparing the written sources with the nautical charts and archaeological data, it appears that the coastline of Calabria, both in Caulonia and Croton, has changed profoundly since antiquity. It is, therefore, likely that in antiquity the coastline extended more into the open sea and sharp rocks were closer to the water’s surface than they are today, presenting an even greater danger for sailors in the third century A.D, when the Punta Scifo A merchantman was lost.

\textit{The Coastline in Antiquity: A Possible Reconstruction}

Based on the evidence presented thus far, it is possible to assume that Greek and Roman sailors would have encountered natural settings quite different from those today: centuries of wars, depopulation, deforestation, malaria, floods and high sedimentation have silted ancient harbors and changed drastically the demographic and morphological appearance of the Calabrian shore. There can be little doubt that cities such as Locri Epizephyri, Sybaris, and Caulonia had maritime facilities, which at present are covered by a thick layer of debris and sediments deposited by local rivers.

The ancient writers refer repeatedly to the harbors of Locri Epizephyri and Sybaris, renamed Thurii in 443 B.C. when Athens led a Panhellenic expedition to

\textsuperscript{49} Il Crotonese 8-10 September 1992, 65, 5.
resettle the site, which had been abandoned after Croton conquered it and razed it to the ground in 510 B.C. Remains of Hellenistic shipsheds dating to circa 300 B.C. have been found in Thurii, while in Locri some harbor structures of Archaic and later date have been discovered recently. Aerial photographs seem to locate the site of Locri’s silted harbor where the Portigliola River makes a bend before reaching the sea, much like the Tiber River in Ostia; presumably, this could be the area of the elusive harbor facilities mentioned by Thucydides, Diodorus Siculus, and Livy.

It must be remembered that the amount of debris and sediment the local rivers carried throughout the centuries is massive: the remains of a fourth-century B.C. tomb at Sybaris, found under 8 m of alluvium, along with further archaeological remains buried at a depth of 12 m, demonstrate this phenomenon. With the exception of the two bollards discovered by Iannelli and Mariottini, there is no archaeological evidence for naval installations in Caulonia. However, considering the city’s proximity to the sea and the references found in Polyaenus, Porphyrius, and Pseudo-Scylax, there can be no doubt that Caulonia was equipped with some naval installations.

Therefore, seafarers who left the bay of Tarentum and headed to Rhegium did not encounter the flat, featureless coastline typical of modern Calabria. They could stop first at the mouth of the river Crati, where the Greek colonies of Sybaris/Thurii,

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50 Livy 24.1.9; 24.3.15; 27.25.11; 29.7.7; 29.8.9-11; 29.9.8; 42.48.6-7. Diod. Sic. 8.19.1-2; 13.3.3-5; 16.18.2; 22.8.3. Thuc. 4.1.1; 6.44.2-3; 6.104.2; 7.23.3-6; 7.25.2-3; 8.35.1; 8.91.2.
51 Zancani Montuoro 1972-73, 75-9.
53 Schmiedt 1975, 113-5.
54 Delano Smith 1979, 330.
55 Iannelli, Lena, and Mariottini 1993, 10.
56 Polyaenus, Strat. 6.11; Porph. Pyth. 56; Ps. Skyl. 14. See Appendix 3.
or, thereafter, Roman Copia, flourished for centuries. Metapontum was a possible small port-of-call. Following this they would arrive at the port-canal of Sybaris, with docks at the estuary of the river Crati. Then came Croton, a good resting place for ships and their crews, the Roman cities of Scolacium, Caulonia, and Locri Epizephyri. In this way it was possible to divide the 450-km Tarentum to Rhegium route into as many as five or six legs (Fig. 13). Additional small and now unknown landing places were probably also available, like the landing spot at the mouth of the Hylias River (modern Nicà) between Sybaris and Croton, where the Athenian army embarked in 415 B.C. The written sources fully support this proposed reconstruction. Thucydides, describing the Athenian expedition to Syracuse in 415 B.C. (Fig. 13), recorded in ample detail the route the trierarchs chose to direct their warships to Sicily. The main part of the fleet left the Piraeus, sailed around the hostile Peloponnesian coast, and reached Corfu, where the Athenians decided to stop and build new supply ships and additional triremes. From there all the ships began together to cross the Ionian sea to Italy; and when they reached the Iapygian promontory or Tarentum, or where each happened to make landfall, they made their way along the Italian coast, the cities refusing them admittance to market or town, but allowing them water and beaching facilities, Tarentum and Locri not admitting them even to these, until they came to Rhegium, the toe of Italy. (Fig. 13).

57 Schmiedt 1975, 128-33; Zancani Montuoro 1972-73, 75-9.
58 Thuc. 7.25.1-2.
59 Thuc. 6.44.2-3. The Iapygian promontory is modern Santa Maria di Leuca.
Fig. 13. The Athenian expedition to Syracuse, in 415 B.C. (Drawing after Morrison, Coates and Rankov 2000, 100).
The Otranto channel is only 105 kilometers wide and it represents the shortest way to reach the Italian peninsula for ships coming from the Aegean. The harbors along the coast of Calabria provided Greek and Roman seafarers with shelter and materials for the ships, water, food supplies, and a safe resting place for the crews.

At the end of the 14th century A.D., written accounts record the journeys of Simone Lecavella and Pellegro Maraboto, who traveled, respectively, from Alexandria and Messembria in the Black Sea to Genoa. With a quick glance at Fig. 14 it is apparent that the only real difference between the route they took and that of the Athenian fleet in Thucydides’ account is the ability of the ships to skip the Gulf of Tarentum, sailing rather in a straight line from Santa Maria di Leuca (the ancient Iapygian Promontory) to Capo Colonna with only one stop in Roccella before reaching the Strait. Before lateen sails were in use, vessels were more subject to the vicissitudes of winds and currents, but the evidence indicates that ancient seafarers followed the same route as Lecavella and Maraboto.

Strategically located where the flat Ionian shoreline is interrupted by a number of small, wind-sheltered bays created by the three promontories of Capo Colonna, Capo Cimiti, and Capo Rizzuto, the area to the south of Croton was a natural haven for seamen in danger. Many of them likely found shelter, but some probably lost their ships, if the winds changed unexpectedly. This may be precisely what happened to the five ancient naves lapidariae that sank in this area.

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60 Horden and Purcell 2000, 140.
Fig. 14. Simone Lecavella's and Pellegrino Maraboto's return routes from Alexandria and Constantinople to Genoa. (Drawing after Horden and Purcell 2000, 141).
The Scirocco Wind and the Final Moments of the Ships

(Punta Scifo A, Punta Scifo B, Punta Cicala)

It is worth describing, in this context, my own experience in 2006, of sailing between Capo Colonna and Capo Rizzuto. There is nothing like traveling in a 5 m-long, undecked launch to help one understand the real dangers of the sea and the way it affected seafarers in antiquity. In 2006 the sea was unusually rough for mid-July in southern Italy, and more than once it was impossible to reach the archaeological site by boat due to the erratic winds and resulting choppy seas. The mornings typically began with a light north-easterly wind, known locally as Grecale, but by midday the stormy Ponente or Libeccio would blow in from west and south-west, only to die down suddenly by late afternoon (Fig.15). More than once our team was forced to take shelter in a protected bay and wait for the wind and sea to subside. This experience taught us what the ancient mariners must have been all too familiar with: unpredictable and ever-changing winds around Croton. Even though the area offers endangered ships shelter in numerous protected bays, the entire coastline is totally exposed to the destructive action of the southerly Scirocco. This may explain why so many ships were wrecked along this coastline, and why the Punta Scifo A and Punta Scifo B shipwrecks lie with their bows oriented to the north, while the marble carrier smashed on the rocks of Punta Cicala is oriented along an east-west axis. The captains of these three ships saw the harbor of Croton on their starboard side, and would have gladly reached it, if only they could.

61 See Chapter II, pp. 58-65; Chapter III, pp. 74-5 for additional information.
Coming from the northeast, caught by a storm of *Grecale*, they could not steer the necessary course to reach Croton safely without taking the risk of capsizing their ships by exposure to high waves. Unable to reach Croton, their only option was to proceed past Capo Colonna, and try to find shelter behind it, in the bay of Punta Scifo (Fig. 15). After the ships entered the bay, perhaps the *Scirocco* blew in suddenly and dashed them against the sharp rocks that in antiquity were closer to the surface than they are today.

The captain of the Punta Cicala wreck passed Capo Colonna and was on his way to Punta Scifo, but apparently was not able to keep the ship far enough from the surfacing rocks of Punta Cicala: this marble carrier hit them, sinking with its bow oriented towards the bay it never reached. Sometimes the sea, not the captain, dictates the route.
Fig. 15. Location of the Punta Scifo A, B, and Punta Cicala shipwrecks. The compass rose indicates the names of corresponding winds. (Drawing: D. Bartoli).
Conclusions

Looking at the present-day coastline of Calabria, so uniform and linear, virtually without any natural bays that can be used as harbors, without benefit of lagoons or river estuaries that can be used as port-canals, it is difficult to understand how the region was an active center of maritime activity in Greco-Roman times. The Ionian coastline is indeed almost entirely flat and sandy, with the remarkable exception of Croton. For the sailor who leaves Tarentum heading to the Strait of Messina, modern Croton offers the only natural harbor along the Ionian coastline before reaching Rhegium.

Having considered the historical, archaeological, and geographical data currently available, it is possible to conclude that in the last 20 centuries the rivers’ courses in the region have changed. Deforestation seems to have been the main cause of this dramatic environmental shift. The presence of tree branches and leaves lessen the impact of heavy rain falling on the ground; their roots solidify the soil, limiting the effect of water erosion (especially near riverbeds), and the topsoil formed by trees can absorb a great quantity of rain. It is impressive to see, on a satellite map of Calabria, that the coastal areas close to the ancient settlements are barren and dry, while the forests of the interior at higher altitudes and at greater distance from human settlements still appear mostly intact. As more trees were cut further and further away from the cities, the faster the soil was washed off the flanks of Calabria’s hills and mountains, which, due to their steep slope, intensified the negative effect of rainfall and river erosion. In this way, erosion debris was carried downstream to the rivers’ estuaries, covering with sediment the
ancient settlements and ports located close to the rivers’ mouths. The harbor of Croton represents the exception, since it was built on a raised terrace immune to the effects of the river Esaro. Similarly, the entire area south of the city, from Capo Colonna to Le Castella, is not affected by heavy sedimentation, since there are no rivers flowing into the sea in this area of Calabria.

In the 1980s and 1990s the Italian government, trying to give a new economic stimulus to the region’s economy and to develop tourism, began an ambitious project of improving Calabria’s maritime facilities. As a result of this effort, nine small artificial harbors have been built along the Ionian coastline. Along the Tyrrhenian coast, from south to north, seven more landing-places have been created. Interestingly, both the tiny harbors of Sybaris and Gizzeria are port-canals, as was likely the case in antiquity. In modern times efforts are under way to return the coastline of Calabria to what it was 25 centuries ago: a much more hospitable land for sailors and their ships.

62 These harbors are, from north to south: Laghi di Sibari, Corigliano Calabro, Cariati, Ciro’ Marina, Le Castella, Marina di Catanzaro, Badolato, Roccella Jonica, and Saline Joniche. (Bianchi di Castelbianco 2003, 44-70). The author personally saw the harbor of Badolato Marina almost finished and in use by small fishing boats in the summer of 2003.
63 The names of the harbors are: Scilla, Bagnara, Tropea, Pizzo Calabro, Gizzeria, Cetraro, and Diamante. (Bianchi di Castelbianco 2003, 7-38).
CHAPTER II
HISTORY OF THE STUDIES

The main purpose of this chapter is to review the history of archaeological work carried out on the sunken marble carriers south of Croton between 1908, when a local fisherman fortuitously discovered the first site, and 2006, when the last INA campaign took place. Although each of the five wrecks had already been located before 2005, almost no details about their size, location, or cargo composition had been made available to the scientific community. Furthermore, all the sites underwent archaeological excavation, but the collected data never left the public library of the Archaeological Museum of Croton. Patrizio Pensabene was the only scholar who conducted research on the Punta Scifo A and Capo Cimiti sites before the 2005 survey began.

The following pages present the histories of these five sites as known from archival documents found in the Archaeological Museums of Reggio Calabria and Croton. Proper credit will be given to the original discoverers, who have been almost forgotten since the early years of the 20th century.
The Punta Scifo A Shipwreck and Its Early Discoverers: Local Fishermen and
Paolo Orsi’s Reports (1908-1921)

A century ago, in 1908, the Italian archaeologist Paolo Orsi received information
concerning a cargo of marble artifacts located off the beach of Punta Scifo. On August
21 of the same year a local fisherman named Antonio Tricoli had recovered a large
marble basin, with an internal diameter of 2.10 m, which was promptly confiscated by
the Coast Guard and sent to the National Museum of Tarentum at the recommendation
of Prof. Q. Quagliati. The following year Mr. Tricoli’s brothers continued the search
for marble artifacts in the sea around Punta Scifo, and located, close to the original find
spot, two additional basins (known as *labra*, plural of the Latin *labrum*, meaning “basin,
tank, pond”) and three column shafts. The brothers were able to raise them to the surface
and, having “overcome unthinkable difficulties” they carried the artifacts to the harbor of
Croton, where the three column shafts were unloaded and abandoned. Figure 16 shows
the two largest basins (LAB 2-3) as they were seen in December 2005 flanking the
entrance of Croton’s Archaeological Museum. Their size is remarkable: the upper
external diameters are 2.25 and 2.36 m wide, while their heights reach 1.04 and 1.05 m.

Antonio Tricoli’s name appears once more in Croton’s chronicles in 1966, when,
as “an old seaman,” he claimed to have seen 15 m from the beach of Capo Colonna and

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64 Valente 1973, 50 n. 31. According to G. Valente the internal diameter of this basin is 2.11 m, while in
Paolo Orsi’s 1911 article the same artifact appears to have a diameter of only 2.00 m, and a height of 0.85
m (Orsi 1911, 119). Patrizio Pensabene in 1978 reanalyzed some of the marble items from Punta Scifo,
and found that the basin in Tarentum has a maximum upper diameter of 2.10 m, internal upper diameter of
1.70 m, and height of 0.90 m (Pensabene 1978a, 114). It is evident that Paolo Orsi’s measurements were
taken quite hastily and ought to be used with caution.

65 Valente 1973, 50 n. 31. When G. Valente published his book he was still able to see the three column
shafts near the *Stazione Torpediniere* of the Old Harbor. No one moved them from 1909 until at least
at a depth of 4 m, the massive golden column that Livy and Cicero say existed in the temple of Hera.⁶⁶

Fig. 16. The entrance to the Croton Archaeological Museum is flanked by the two largest marble basins from the Punta Scifo A shipwreck, LAB 2-3. Notice the rectangular bosses under the rim, that would have been eliminated or transformed into masks or floral decorations after the arrival of the artifact at its final destination. (Photo: D. Bartoli).

In 1910, Paolo Orsi, then Director for the Archaeological Patrimony of Calabria and a veritable pioneer of archaeological studies for the entire region, examined this material, and took detailed notes of the basins’ dimensions. He also recorded some

⁶⁶ Valente 1973, 30 n.15. Livy, 24.3.6; Cic. Dív. 1.48. As Domenico Marino suggested to the author, it is possible to imagine that the legend of the golden columns was born after local archaeologists asked Mr. Tricoli if the column he saw was “Doric.” In Italian, the adjectives “d’oro” (golden) and “dorico” (Doric) have a very similar sound, and probably Mr. Tricoli, misunderstanding the real nature of his find, spread false rumors about his discovery. It is true that close to Capo Colonna there are submerged column shafts, belonging to the “Punta Cicala” shipwreck, and probably these are the columns to which Mr. Tricoli was referring. Due to his persistence in finding ancient submerged sites, Mr. Tricoli should be credited as the first diver active in Croton to have shown an interest in underwater archaeology.
Roman inscriptions on two of the three columns referring to the consulates of Lateranus and Rufinus (A.D. 197) and Severus and Victorinus (A.D. 200), and published the first scholarly report of the discoveries. Additional discoveries were made between April 30 and May 3, 1915, when the Forcellini Company from Milan dredged the seafloor for rocks and boulders. At that time a new dock was under construction in the harbor of Croton, and Forcellini Engineering won the bid to supply the building material necessary for its foundations. In only a few days, as Paolo Orsi wrote, “the new discoveries increased almost tenfold” the number of marble elements raised since 1908, a concise description that gives a good idea of the quantity of artifacts the Forcellinis raised from the seafloor. The marble items were unloaded at the dock of Croton, as seen in an old photograph in which 13 rectangular blocks, ten column shafts, and two pedestals are visible. Additional artifacts are presumably hidden beneath the pile (Fig. 17).

Fig. 17. Period photograph showing the artifacts raised from Punta Scifo A, unloaded on the dock of Croton. Marble blocks, column shafts, and statue pedestals are visible. (Photo after Paoletti 1994, 529, fig. 69).

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67 Orsi 1911, 118-24.
68 Orsi 1911, 123.
69 Severino 1988, 103.
70 Original report May 15, 1915, 1. (Appendix 2).
Thanks to a second short, yet detailed report Orsi published in 1921, and to the original records available for examination in the archives of Reggio Calabria’s Archaeological Museum, a good deal of information is available to reconstruct the number and types of artifacts raised from the seafloor in 1915. The site was said to be located 200 m offshore, estimated to have an area of ca. 50 m x 50 m, at a depth of 6-7 m.\textsuperscript{71} It is also mentioned that 2-3 m of sand still covered the underwater material.\textsuperscript{72}

In only four days of work, most of the Punta Scifo A shipwreck’s original assemblage was either removed or severely disturbed. Mr. Forcellini calculated that about 150 tons of marble were brought to the surface, along with “numerous wooden remains pertaining to a vessel” and amphora sherds Paolo Orsi identified as Roman.\textsuperscript{73} Considering that the Isola delle Correnti shipwreck, the largest navis lapidaria found to date in the Mediterranean, was carrying approximately 350 tons of marble, the weight of the recovered material gives a good idea of the extensive spoliation that took place in May 1915.\textsuperscript{74}

Comparing the archival documents to Orsi’s publications, it is possible to conclude that between 1908 and 1915 no less than 52 marble items were raised and deposited in the harbor of Croton: 8 almost finished labra, 10 pedestals each decorated with four lions’ paws, 6 statue bases, 15 column shafts, 10 marble blocks, an unspecified number of which had lead seals “in the shape of an ansate little plate,” and an intact

\begin{itemize}
\item[71] Orsi 1921, 493.
\item[72] Original report May 15, 1915, 1.
\item[73] Orsi 1921, 493-6. For the marble tonnage, see Orsi 1921, 496 and the original record dated May 15, 1915.
\item[74] For Isola delle Correnti, see see Kapitän 1971, 296-8. A dive on Punta Scifo A’s remains during the 2005 INA expedition revealed that only four marble blocks, one column shaft, two thin slabs, and some tiny fragments of white marble are still visible on the seafloor. The 2006-2006 catalog of the items recovered makes it possible to estimate that approximately 200 tons of marble were carried aboard. Therefore, it is now known that the Forcellinis raised to the surface most of this cargo.
\end{itemize}
marble table, along with fragments of two more tables. Detailed information is available only for the most artistic of them, while little is known about the unfinished blocks and column shafts. What little hull remains were raised appear to have vanished. Likely deemed of little value to the general public, they were left to air dry and disintegrated quickly once brought to the surface.

A New Phase of Research: Gianni Roghi and Patrizio Pensabene (1961-1978)

As is suggested by the disappearance of the artifacts and the disintegration of hull remains, interest in the marbles of Punta Scifo waned in the years that followed the discoveries of 1915. The shipwrecks were apparently forgotten until 1961, when a series of newspaper articles described how it was “absolutely necessary to recover the columns of the ancient temple of Hera Lacinia.” Public hearings were brought to the Lower House in Rome, prompting the Central Government to send Mr. Gianni Roghi to dive close to Punta Scifo. He investigated the area “not less than half a kilometer south of Capo Colonna” without finding any trace of archaeological material there, but was able to see and map, with the help of a local diver, five isolated monolithic marble column shafts a few kilometers south of Punta Scifo. These became known as the “Capo Cimiti columns” after the nearby promontory.

It is possible that local divers in the 1960s remembered the location of the Punta Scifo A shipwreck, and raised more artifacts. Armando Lucifero, a passionate collector

75 Original report May 15, 1915.
76 Valente 1973, 67 n.46.
77 Roghi 1961, 311.
of antiquities and owner of the eponymous 17th-century tower in Punta Scifo (Fig. 18), added this personal note to his 1976 translation of François Lenormant’s *La Grande Grèce*: “in the same little bay [of Punta Scifo] was raised the little marble group representing Eros and Psyche, which I bought and is now in the Civic Museum of Croton.” This is a clear indication that the site had been looted sometime between 1915 and 1976. As the bay is extremely small, the wreck lies in shallow water, and its location is easy to remember owing to the retaining walls of a farm facing the site, it was an easily accessible target for local seamen and sport divers in the 1960s and 1970s.

![Fig. 18. Lilia Campana marks the Punta Scifo B shipwreck’s location. Lucifero Tower, in the background, overlooks the little bay. (Photo: D. Bartoli).](image)

In 1978 Patrizio Pensabene published a detailed review of all the marble pieces that he could find since Orsi’s publications. He was able to locate only 27 pieces of the cargo,

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79 A document dating to 1649 mentions the Punta Scifo tower as a “new and strong tower to watch all this promontory.” (Valente 1960, 20-1, n.37).
80 Lenormant 1976, 223 n.29.
and curiously some of the blocks and columns that had been abandoned along the docks in Croton were subsequently discovered in a church courtyard in Corazzo, at a distance of ca. 30 km from Croton.\footnote{Pensabene 1978a, 107.} Pensabene also visually analyzed small samples of the marble to identify their provenience and published a catalog with drawings, measurements, and records of the visible inscriptions.\footnote{Pensabene 1978a, 105-18; Pensabene 1978b, 233-4.} It is thanks to his studies that the sources of the stone have been identified as Docimium and Proconnesus (Turkey) for the Punta Scifo A shipwreck, and Carystos (Euboea, Greece) for the Capo Cimiti column shafts. Pensabene's and Orsi's articles remain the only published analyses of these two sites.


A third season of research began in 1983, when Michele Mungari, a diver from Croton, relocated the Punta Scifo A shipwreck and gave its exact position to the Soprintendenza ai Beni Archeologici della Calabria.\footnote{Freschi 1987, n.1.} In the summer of the same year, Alice Freschi, director of the private firm Aquarius, an archaeological contract company specializing in underwater surveys and archaeological excavations for the Italian Fine Arts Bureau, carried out an excavation of the navis lapidaria.

The same year Luigi Cantafora, arguably the most experienced diver still active in Croton, initiated a collaboration with the Calabrian Soprintendenza. He showed all the ancient sites he had discovered during his long career as a Navy and sport diver to
Freschi, who carried out eight seasons of archaeological surveys and excavations during the years 1983-1984, 1987-1991, and 1994. The amount of data they collected is truly impressive, even though not one of these campaigns lasted more than 12 consecutive days, and in many instances considerably less.

Aquarius’ archaeologists mapped the Punta Cicala shipwreck in 1983 and 1984, excavated the Punta Scifo B marble carrier in 1987, made a sketch of the column shafts at Capo Cimiti in 1988, and another of the Capo Bianco merchantman in 1991.\textsuperscript{84} While the Punta Scifo A shipwreck will be the sole focus of Chapter III, the results of Aquarius’ work are presented here, alongside the new data collected during the INA 2005 and 2006 INA campaigns.

\section*{The INA Campaigns (2005-2006)}

\textit{The 2005 Mapping Season}

Between August 20 and September 24, 2005 under water investigations by INA and RPM Nautical were concentrated on the mouth of the Neto River, 12 km north of Croton’s harbor, and the resort at Praialonga, 35 km to the south, (Fig. 19). Two research vessels were used simultaneously: the small catamaran \textit{Juno} (Fig. 20), 8.2 m long, 2.9 m wide, and with a draft of only 1 m, proved to be perfect for shallow-water operations, and was used to scan the seafloor up to a maximum depth of 25 m. Three Geometrics

\textsuperscript{84} Based on Freschi’s reports, the Punta Cicala shipwreck is also known as “Cantafora A,” the Punta Scifo B as “Cantafora B, and the Capo Bianco site as “Cantafora C.” In this work I prefer to name the shipwrecks after the nearby promontories, even though Mr. Cantafora deserves full credit for his discoveries.
882 magnetometers were also on board, while the Reson Seabat 8125 multibeam sonar proved to be highly effective when used in shallow waters.

Fig. 19. The 2005 survey area, extending from the River Neto’s estuary (A) to Praialonga (N). Note the three promontories of Capo Colonna to the north, Capo Cimiti in the middle, and Capo Rizzuto to the south. (Map: D. Bartoli).
Due to her size and limited draft, Juno was able to survey close to shore, mapping large archaeological objects such as semi-worked marble blocks and column shafts with remarkable detail. This technology proved to be less accurate and reliable when it came to locating smaller artifacts, such as amphoras, in deeper waters, but for the large marble blocks at a depth of 7-8 m, it provided excellent results. Once the multibeam data were processed and the instruments’ swaths were merged, a three-dimensional map of the seafloor was generated, illustrating the wreck sites of the three marble carriers of Punta Scifo A, Punta Scifo B, and Punta Cicala.

The second research vessel, Hercules (Fig. 21), being much longer (37.3 m), beamier (6.7 m), and with a draft of 1.5 m, was used to survey depths of 25 to 75 m, with her two keel-mounted Kongsberg multibeam sonar units (EM 1002 and EM 3000D) and a Benthos side-scan sonar. Theoretically, the multibeam sonar should have been able to survey to a depth of 1,000 m and the side-scan sonar to 2,000 m.
In reality, however, in order to get the amount of detail required to locate relatively small artifacts, their operative range was limited to no more than 70-75 m. Unfortunately the remotely operated vehicle (ROV) available on Hercules malfunctioned after only a few dives. As a result, most of the acquired targets in the deep waters of Croton remain uninvestigated.

Considering that the 47 km of coastline from the Neto River to Praialonga represents a remarkably large area to investigate in less than a month, we created small adjoining navigational grids. Each sector could be covered in eight or nine hours with Juno and Hercules, weather permitting. The survey’s swaths were set using PDS 2000™ navigation software. At the end of the campaign, approximately 50% of the designated survey area had been covered. The area between the harbor of Croton and Capo Cimiti from 5 m to 75 m deep was nearly entirely surveyed. The two research vessels could cover only a small fraction of the sea from Capo Cimiti to Le Castella; the seafloor between Le Castella and Praialonga remains totally unexplored (Fig. 22).
The rocky spots close to the coastline and in shallow waters often had to be avoided because of the rocks rising dangerously close to the surface, even for the shallow-drafted *Juno*. They were visually inspected by snorkeling. It was in this manner that we found the column shafts at Capo Cimiti and the marble blocks at Capo Bianco. Table 1 records the coordinates of the area covered until the last day of work in 2005.

**Table 1. Coordinates of the surveyed area, 2005.**

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In 2005, time permitted only a quick glance at each site. Pictures, videos, and basic measurements of some blocks provided further information to supplement the images available from the multibeam data, and to mark the exact GPS location of each site.
Surveyed Area, Croton 2005

Fig. 22. Area surveyed south of Croton as of September 24, 2005. (Map: D. Bértoli, Multibeam data: RFM Nautical Foundation).
The most important result of this first survey campaign was not only the relocation of four marble wrecks, along with two other heavily-looted amphora cargoes, but also the reinvestigation of the marble artifacts associated with the Punta Scifo A, B, Capo Cimiti, and Punta Cicala shipwrecks, a study that had ended with the last Aquarius campaign in 1994. For the second time since Paolo Orsi, a small group of archaeologists could see first-hand the situation on the seafloor.

The 2006 Mapping Season

The 2006 season saw a much smaller team working in Croton: RPM Nautical Foundation did not take part in the second research campaign, but the Center for Maritime Archaeology and Conservation at Texas A&M University (CMAC) and INA provided field support for the author and archaeologist Lilia Campana, for the total duration of the research permit (July 15 - August 15). The equipment used was extremely simple, but well-tested, reliable, and effective: a small launch powered by a 10 HP engine (Fig. 23), basic SCUBA gear, a handheld GPS system, two digital cameras with underwater housings, PhotoModeler™ 4.0 mapping software, and, in case of poor weather, an inflatable dinghy (Fig. 24) that was anchored over the site and used to hold tape measures, miscellaneous tools, and other supplies.

85 In the resort called “Eurocamping” several sherds of Greco-Italic A amphoras were seen at a depth of 5 m., and in resort “La Tonnara” a large concentration of Dressel 2-4 amphoras. The former are dated to the late fourth-early third century B.C., the latter to the late first century B.C.-mid second century A.D. (Peacock and Williams 1986, 84-5; 105-6.) Mr. Luigi Cantafora had already shown these sites to the author in 1996, during a summer field school organized by the local Gruppo Archeologico Krotoniate.
Fig. 23. The launch used to reach the archaeological sites in 2006. (Photo: D. Bartoli).

Fig. 24. The tiny dinghy, towed from the shore and filled with tools and supplies. Since the wrecks of Punta Scifo A, B, and Capo Cimiti are located in a protected bay no more than 200 m offshore, it proved to be easier to reach them from the beach than from the sea, in the event of poor weather conditions. (Photo: D. Bartoli).
Such basic gear was more than enough to work comfortably on all the marble shipwrecks. Their depth is sufficiently shallow (no more than 8 m), and their location so close to the coastline, that more expensive equipment was not necessary. Additional measurements of the Punta Scifo A and B marble elements were taken. While only a few remains of the A site were still in situ, wreck B was much better preserved: the marble blocks and slabs of Punta Scifo B still retained their stacking pattern, preserving the cargo’s original disposition within the ship’s hull. Unfortunately, it provided impossible to make a new map of the shipwrecks using digital photography and PhotoModeler, due to the site unfavorable conditions. All the wrecks were too shallow, the areas too large, and the focal lengths of the camera lenses too long to allow for the incorporation of more than three or four blocks into any single image. As a result, it was not possible to obtain a general view of the wrecks and capture sufficient data points in the individual pictures for accurate image processing. After having collected information on the Punta Scifo A wreck, the INA survey team spent the remaining time documenting the other sites located in 2005 with basic measurements, photography, and video. The following pages present the new, firsthand information collected on these merchantmen; the Punta Scifo A shipwreck is discussed in Chapter III.
Results of the Studies

The Punta Scifo B Shipwreck

The Punta Scifo B shipwreck rests in a little bay close to *Lucifero Tower*, the summer residence of the eponymous Marquises from Croton (Fig. 18). The wreck was partially excavated by Aquarius between September 16 and September 24, 1987. A 2005 multibeam image of the Punta Scifo B wreck gives the general features of the site (Fig. 25). Thirty marble slabs and 24 blocks are located at a maximum depth of 7 m on a sandy seafloor, 179 m away from the nearby Punta Scifo A shipwreck (Fig. 26).

The site, apparently intact and still retaining the overall shape of a merchantman, covers an area of 24 m x 15 m and its orientation follows a southeast-northwest direction that presumably reflects the position of the vessel when it sank, with its bow facing the shore. The marble objects are still arranged next to one another or superimposed in two or three layers (heavier blocks beneath, lighter slabs above) presumably as they were placed inside the ship’s hold. The blocks’ total weight approaches 350 tons, and the ship that carried them was probably larger and beamier than the ship lost at Punta Scifo A: based on the distribution of the artifacts, it is likely that the hull measured ca. 40 m x 12 m.\(^\text{86}\) Based on the type of amphoras carried on board, the ship appears to have sunk in the third century A.D.

\(^\text{86}\) The third-century A.D. Isola delle Correnti shipwreck is remarkably similar to the Punta Scifo B wreck. It carried a cargo of 49 marble blocks for an estimated weight of 350 tons, with a hull of 40-48 m in length and 10-11 m in beam. (Kapitán 1971, 296-8).
Fig. 25. Multibeam image showing the Punta Scifo B shipwreck. (Data: INA-RPM Nautical Foundation).

Fig. 26. Multibeam image of the Punta Scifo A and B marble carriers, 179 m apart. (Drawing: D. Bartoli. Data: INA-RPM Nautical Foundation)
Table 2 provides the measurements and tonnage of every marble item. The stone has not been analyzed yet, but it may have come from Proconnesus, considering its bluish-white color, appreciable in the blocks that were well-preserved under the sand.87 Using the dimensions of each marble element and the specific gravity of marble as 2.563 kg/m³, it is possible to calculate an estimate of the overall tonnage using the following mathematical formulas:88

\[ V_{\text{parallelepiped}} = \text{Width} \times \text{Length} \times \text{Height} \text{ (for blocks)}; \]

\[ V_{\text{cylinder}} = \pi \times r^2 \times \text{Height} \text{ (for columns)}. \]

### Table 2. Dimensions and tonnage of the marble blocks and slabs from the Punta Scifo B wreck site. (INA data merged with data from Freschi 1987, 41-3).

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87 See Chapter IV, pp. 171-5 for more information regarding the physical properties of Proconnesian marble.

88 The specific densities of marbles vary. This work uses the generic figure provided by the Specific Gravity of General Materials Table (2008, http://www.csgnetwork.com/specificgravmattable.html).
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<td>1.75</td>
<td>0.35</td>
<td>1.23</td>
<td>3.14</td>
</tr>
<tr>
<td>51</td>
<td>Slab</td>
<td>2.75</td>
<td>1.80</td>
<td>0.30</td>
<td>1.49</td>
<td>3.81</td>
</tr>
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<td>Slab</td>
<td>1.00</td>
<td>1.00</td>
<td>0.35</td>
<td>0.35</td>
<td>1.35</td>
</tr>
<tr>
<td>53</td>
<td>Slab</td>
<td>1.20</td>
<td>1.70</td>
<td>0.30</td>
<td>0.61</td>
<td>1.57</td>
</tr>
<tr>
<td>54</td>
<td>Slab</td>
<td>1.95</td>
<td>1.08</td>
<td>0.35</td>
<td>0.74</td>
<td>1.89</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>348.63</td>
<td></td>
</tr>
</tbody>
</table>

Since these architectural elements of the Punta Scifo B shipwreck rest on a sandy seafloor, it is possible that wooden hull remains are preserved beneath the heavy blocks. During the 1987 Aquarius excavation one of the ship’s planks was found, measuring 2.70 m long, 8 cm thick, and with two rows of mortises and tenons.\textsuperscript{89} Its description matches closely the hull fragment found on the nearby Punta Scifo A wreck site.\textsuperscript{90}

Half of a wooden anchor stock was also found in 1987, lying beneath a broken tile, a bronze ladle, and protected by marble block 8 and a rock.\textsuperscript{91} It is 0.865 m long, ca. 0.110 m wide, and filled with two trapezoidal lead cores, each one measuring 0.28 x

\textsuperscript{89} Freschi 1987, 3.
\textsuperscript{90} Lattanzi 1984a, 574-5.
\textsuperscript{91} Freschi 1987, 47.
This stock represents possibly the only “Haldane II A” anchor type with the wood still preserved. Parallels are associated only with shipwrecks ranging from the sixth to the mid-second-century B.C. Due to its late date and find spot beneath Roman artifacts, it seems unlikely that this anchor stock belonged to the Punta Scifo B shipwreck. It is probably not associated with Punta Scifo B, and was lost by another merchantman centuries before the Roman marble carrier sank.

The probable location of the ship’s galley on the southeastern edge of the site is indicated by the presence of one intact terracotta tile along with fragments of others, two bronze ladles 0.35 m long ending in curved swan’s heads, fragments of Kapitän 2 amphorases with remains of pitch inside, and sherds of kitchen ware. A fragment of lead sheathing perforated with holes and probably intended to protect the outer hull from marine borers, square-sectioned copper nails of different lengths, and copper tacks with round-sectioned shanks were also uncovered. One of the tacks is 0.65 m long.

The overall impression is that Punta Scifo B was a merchantman with a cargo larger and heavier than the nearby Punta Scifo A wreck, but without finished, decorative artifacts. No basins, stands, candelabra, statuettes, or other similar items were found on board. The blocks and slabs are never decorated, with the partial exception of Block 13, the longest of the group, which has simple cornices at each extremity. The Punta Scifo B

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92 Freschi 1987, 3-4, 47-51.
93 The type “Haldane II A” is characterized by a wooden stock with two lead cores separated by the shank. In the “Haldane IIB” type the lead core is a single cast, joined through the shank. (Haldane 1984, 3).
94 The earliest example of a II A stock comes from the late sixth century B.C. shipwreck at Bon Porté. Other shipwrecks which had this type of anchor have been found at Tektaş Burnu (end of fifth century B.C.), Porticello (late fifth – early fourth century B.C.); Kyrenia (late fourth century B.C.); Secca di Capistello (early third century B.C.). The latest example published until present comes from Isla Pedrosa, and it dates to the middle of the second century B.C. (Carlson 2003, 581; Haldane 1984, 6-7; Haldane 1986, 419).
95 Freschi 1987, 5.
96 Freschi 1987, 4.
cargo was probably intended to provide architectonic material to cover walls and floors of an unidentified Roman building.

*The Punta Cicala Shipwreck*

A third site with marble blocks was visited during the 2005 campaign, 1.5 km to the east of the Punta Scifo B shipwreck (Fig. 27). The ship lies at a depth of 6.5 m among the sharp rock outcrops that constitute Punta Cicala; the remains cover an area of ca. 15 m x 12 m. Twenty-seven stepped stone blocks and column shafts were counted in 2005 and 2006, but the dimensions of only six have been taken and are reported along with their weight in Table 3. Their sheer size is remarkable: the six blocks alone total 54.38 metric tons. Because the blocks were not protected by sand, and rest on an uneven rocky surface exposed to the destructive weathering forces of the sea, it is highly improbable that any hull remains survive beneath them.

Table 3. Dimensions and tonnage of six blocks from the Punta Cicala shipwreck.

<table>
<thead>
<tr>
<th>Block #</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Thickness (m)</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.35</td>
<td>1.05</td>
<td>0.65</td>
<td>7.61</td>
</tr>
<tr>
<td>2</td>
<td>6.40</td>
<td>1.05</td>
<td>0.60</td>
<td>10.33</td>
</tr>
<tr>
<td>3</td>
<td>5.65</td>
<td>1.10</td>
<td>0.50</td>
<td>7.96</td>
</tr>
<tr>
<td>4</td>
<td>6.40</td>
<td>1.15</td>
<td>0.40</td>
<td>7.55</td>
</tr>
<tr>
<td>5</td>
<td>4.20</td>
<td>0.72</td>
<td>0.72</td>
<td>5.58</td>
</tr>
<tr>
<td>6</td>
<td>2.87</td>
<td>1.95</td>
<td>1.07</td>
<td>15.35</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54.38</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Two different varieties of stone were apparently transported on the ship: one seems to be a white, shiry marble with a smooth and compact surface, and the other a porous stone, possibly tuff.\textsuperscript{97} Since the survey permit did not allow sampling of the stone from this site, no identification of the stone’s origin can be proposed at this time. Some of the blocks and column shafts are still partially superimposed one atop another in three rows, but most have shifted considerably.

It is noteworthy that the column shafts are still oriented longitudinally, following a northeast-southwest direction that presumably reflects the position of the merchantman.

\textsuperscript{97} The difference in stone quality was first noticed by the Italian Fine Arts Bureau’s commissioner, Dr. Roberto Mazzoni.
when it hit the rocks of the promontory, with its bow pointed towards the bay of Punta Scifo. These data may show that the ship’s captain miscalculated the route while trying to pass Punta Cicala, and could not steer the ship, possibly during a storm of easterly *Grecale* winds. Little information is available regarding Freschi’s work on this site in 1983 and 1984, since it was impossible to find her final excavation report in 2006.98

*The Capo Cimiti Shipwreck*

The site of Capo Cimiti is composed of four long and one short column shafts, resting at a depth of 6 m on a rocky seafloor intermixed with sand. The columns' dimensions and tonnage are given in Table 4. They cover an area of ca. 12 m x 10 m and are still stacked one next to the other, with the exception of the smallest column shaft, which is isolated at a distance of ca. 5 m from the other four. Between August 16 and August 27, 1988, the archaeological cooperative Aquarius drew a new site plan of the five column shafts at Capo Cimiti.99

Compared with the column shafts from Punta Scifo A, the columns visible at Capo Cimiti are considerably longer and wider in diameter. Based on the typology proposed on pp. 98-9 of Chapter III these items are remarkably large, even if longer shafts of 40 R.ft. (11.8 m) and 50 R.ft. (14.8 m) are known in the Roman world. According to Pensabene’s analyses, the marble is green *cipollino* from Euboea, the price

98 A. Freschi herself mentions the archaeological campaigns that took place at Punta Cicala (Freschi 1987, 10). There can be no doubt that an excavation report was filed after the 1983 field work season, since Pensabene mentions it in his writing. (Pensabene 2002a, 36-7).
99 Freschi 1988, 77-86.
of which was capped at 100 denarii per Roman foot in Diocletian’s Edict (A.D. 301). Due to the rocky seafloor, it is unlikely that any remains of the merchantman itself survive beneath the column shafts.

Table 4. Dimensions and tonnage of the column shafts from Capo Cimiti, in meters and Roman feet.

<table>
<thead>
<tr>
<th>Column #</th>
<th>Length (m)</th>
<th>Length (R.ft.)</th>
<th>Diameter (m)</th>
<th>Diameter (R.ft.)</th>
<th>Volume (m³)</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.50</td>
<td>28 ¾</td>
<td>0.90</td>
<td>3</td>
<td>5.40</td>
<td>13.85</td>
</tr>
<tr>
<td>2</td>
<td>8.90</td>
<td>30</td>
<td>1.00</td>
<td>3 ½</td>
<td>6.99</td>
<td>17.91</td>
</tr>
<tr>
<td>3</td>
<td>8.60</td>
<td>29</td>
<td>1.03</td>
<td>3 ½</td>
<td>7.16</td>
<td>18.35</td>
</tr>
<tr>
<td>4</td>
<td>8.80</td>
<td>29 ¾</td>
<td>1.00</td>
<td>3 ½</td>
<td>6.91</td>
<td>17.71</td>
</tr>
<tr>
<td>5</td>
<td>2.90</td>
<td>9 ¾</td>
<td>0.47</td>
<td>1 ½</td>
<td>0.50</td>
<td>1.29</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>69.11</strong></td>
<td></td>
</tr>
</tbody>
</table>

The Capo Bianco Shipwreck

The Capo Bianco shipwreck probably represents a small navis lapidaria, which was carrying marbles of three different colors: white, black, and red. L. Cantafora reported the wreck’s existence in 1991, and Aquarius’ subsequent excavation lasted from September 6 to September 14 of the same year.

The site is composed of approximately 65 small column shafts and blocks lying at a depth of 3.5 - 6 m., spread across an area of ca. 14 m x 18 m. Aquarius took partial measurements of 47 blocks and shafts, which are presented in Table 5. A Late Roman 2 amphora (Keay LXV) dates the shipwreck to the fifth or sixth century A.D.

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100 Pensabene 1978a, 105; Giacchero 1974, 305-6. See Appendix 4 for more information regarding the prices of marbles mentioned in Diocletian’s Edict.
102 Freschi 1991, 11.
Table 5. Dimensions and tonnage for the Capo Bianco shipwreck.  
(Data from Freschi 1991, 8-10; 48-9).

<table>
<thead>
<tr>
<th>Item #</th>
<th>Block/Slab</th>
<th>Marble Color</th>
<th>Length (m)</th>
<th>Width/Diam. (m)</th>
<th>Thickness (m)</th>
<th>Volume (m$^3$)</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Column shaft</td>
<td>Black</td>
<td>1.40</td>
<td>0.40</td>
<td>/</td>
<td>0.18</td>
<td>0.45</td>
</tr>
<tr>
<td>2</td>
<td>Column shaft</td>
<td>White/Red</td>
<td>0.80</td>
<td>0.35</td>
<td>/</td>
<td>0.08</td>
<td>0.20</td>
</tr>
<tr>
<td>3</td>
<td>Column shaft</td>
<td>White/Red</td>
<td>0.50</td>
<td>0.35</td>
<td>/</td>
<td>0.05</td>
<td>0.12</td>
</tr>
<tr>
<td>4</td>
<td>Column shaft</td>
<td>White/Red</td>
<td>1.25</td>
<td>0.30</td>
<td>/</td>
<td>0.09</td>
<td>0.23</td>
</tr>
<tr>
<td>5</td>
<td>Column shaft</td>
<td>White</td>
<td>1.00</td>
<td>0.30</td>
<td>/</td>
<td>0.07</td>
<td>0.18</td>
</tr>
<tr>
<td>6</td>
<td>Block</td>
<td>White</td>
<td>1.20</td>
<td>0.60</td>
<td>0.50</td>
<td>0.36</td>
<td>0.92</td>
</tr>
<tr>
<td>7</td>
<td>Slab</td>
<td>White</td>
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<td>N/A</td>
<td>N/A</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Block</td>
<td>Black</td>
<td>0.80</td>
<td>0.50</td>
<td>0.20</td>
<td>0.08</td>
<td>0.21</td>
</tr>
<tr>
<td>9</td>
<td>Column shaft</td>
<td>White/Red</td>
<td>0.70</td>
<td>0.25</td>
<td>/</td>
<td>0.03</td>
<td>0.09</td>
</tr>
<tr>
<td>10</td>
<td>Column shaft</td>
<td>White</td>
<td>0.80</td>
<td>0.35</td>
<td>/</td>
<td>0.08</td>
<td>0.20</td>
</tr>
<tr>
<td>11</td>
<td>Column shaft</td>
<td>Black</td>
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<td>0.20</td>
<td>/</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td>12</td>
<td>Block</td>
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<td>0.00</td>
</tr>
<tr>
<td>13</td>
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<td>1.20</td>
<td>0.70</td>
<td>0.50</td>
<td>0.42</td>
<td>1.08</td>
</tr>
<tr>
<td>14</td>
<td>Column shaft</td>
<td>Red</td>
<td>0.60</td>
<td>0.25</td>
<td>/</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td>15</td>
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<td>0.80</td>
<td>0.20</td>
<td>0.43</td>
<td>1.11</td>
</tr>
<tr>
<td>16</td>
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<td>N/A</td>
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<td>0.00</td>
</tr>
<tr>
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<td>N/A</td>
<td>N/A</td>
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<td>0.00</td>
</tr>
<tr>
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<td>0.00</td>
</tr>
<tr>
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<td>0.65</td>
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<td>0.25</td>
<td>0.63</td>
</tr>
<tr>
<td>Item #</td>
<td>Block/Slab</td>
<td>Marble Color</td>
<td>Length (m)</td>
<td>Width/Diam. (m)</td>
<td>Thickness (m)</td>
<td>Volume (m³)</td>
<td>Tons</td>
</tr>
<tr>
<td>--------</td>
<td>--------------</td>
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<td>------------</td>
<td>-----------------</td>
<td>---------------</td>
<td>-------------</td>
<td>------</td>
</tr>
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<td>N/A</td>
<td>N/A</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
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<td>0.09</td>
<td>0.22</td>
</tr>
<tr>
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<td>/</td>
<td>0.14</td>
<td>0.35</td>
</tr>
<tr>
<td>23</td>
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<td>0.40</td>
<td>/</td>
<td>0.13</td>
<td>0.32</td>
</tr>
<tr>
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<td>0.25</td>
<td>1.10</td>
<td>0.17</td>
<td>0.42</td>
</tr>
<tr>
<td>25</td>
<td>Block</td>
<td>White/Yellow</td>
<td>0.80</td>
<td>0.50</td>
<td>0.50</td>
<td>0.20</td>
<td>0.51</td>
</tr>
<tr>
<td>26</td>
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<td>/</td>
<td>0.10</td>
<td>0.25</td>
</tr>
<tr>
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<td>0.36</td>
<td>0.92</td>
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<td>0.30</td>
<td>0.42</td>
<td>1.08</td>
</tr>
<tr>
<td>29</td>
<td>Block</td>
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<td>0.90</td>
<td>0.30</td>
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<td>0.69</td>
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<td>0.15</td>
<td>0.75</td>
<td>0.04</td>
<td>0.10</td>
</tr>
<tr>
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<td>0.75</td>
<td>0.40</td>
<td>/</td>
<td>0.09</td>
<td>0.24</td>
</tr>
<tr>
<td>32</td>
<td>Column shaft</td>
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<td>0.90</td>
<td>0.45</td>
<td>/</td>
<td>0.14</td>
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</tr>
<tr>
<td>33</td>
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<td>1.90</td>
<td>0.50</td>
<td>/</td>
<td>0.37</td>
<td>0.96</td>
</tr>
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<td>N/A</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
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<td>Column shaft</td>
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<td>N/A</td>
<td>N/A</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
</tr>
<tr>
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<td>N/A</td>
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<td>0.00</td>
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<tr>
<td>38</td>
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<td>0.75</td>
<td>0.40</td>
<td>0.30</td>
<td>0.77</td>
</tr>
<tr>
<td>39</td>
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<td>0.41</td>
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</tr>
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<td>N/A</td>
<td>N/A</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Item #</td>
<td>Block/Slab</td>
<td>Color</td>
<td>Length (m)</td>
<td>Width/Diam. (m)</td>
<td>Thickness (m)</td>
<td>Volume (m$^3$)</td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
<td>-------</td>
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<td>----------------</td>
<td>---------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>41</td>
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<td>0.45</td>
<td>/</td>
<td>0.14</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Column shaft</td>
<td>Black</td>
<td>1.85</td>
<td>0.40</td>
<td>/</td>
<td>0.60</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Column shaft</td>
<td>Black</td>
<td>1.55</td>
<td>0.40</td>
<td>/</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Column shaft</td>
<td>Black</td>
<td>0.70</td>
<td>0.42</td>
<td>/</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Column shaft</td>
<td>N/A</td>
<td>1.80</td>
<td>0.40</td>
<td>/</td>
<td>0.58</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Column shaft</td>
<td>N/A</td>
<td>0.70</td>
<td>0.30</td>
<td>/</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Slab</td>
<td>N/A</td>
<td>0.55</td>
<td>1.25</td>
<td>/</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>&gt; 16.59</td>
<td></td>
<td></td>
<td>&gt; 16.59</td>
<td></td>
</tr>
</tbody>
</table>
Based on the available data, the cargo weighs more than 16.59 tons. Since complete measurements are available only for 36 elements, it may be assumed that the entire cargo weighed closer to 30 tons.

It appears likely that the ship sank after hitting the shoals, which in the past might have been even closer to the surface. One cannon lay nearby, testifying to another tragedy of later date.103

Conclusions

Having reviewed the history of the studies carried out on the five *naves lapidariae* in the sea off Croton, two criteria emerge: the importance of this area for the study of marble the trade in antiquity, and how little research has been published about them. Following the first discoveries and Orsi’s pioneering efforts, only Roghi and Pensabene have made new contributions to the study of these marble carriers. The results of Freschi’s excavations, if published, would undoubtedly add invaluable data to clarify the nature, date, and size of these five Roman marble carriers.

Of these wrecks, the Punta Scifo A shipwreck is the most endangered. Over the 100 years that have elapsed since the original discovery, important details regarding events between 1908 and 1915 have faded from memory. Many data have already been lost, artifacts Orsi mentioned are currently missing, and the underwater site itself has almost entirely disappeared. The next two chapters will provide a detailed analysis of the Punta Scifo A wreck site, of the artifacts brought to the surface and those still under

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103 The cannon is located at a depth of 5.7 m, it is 2.08 m long, has a diameter at muzzle of 0.29 m, and a bore of 0.18 m.
water, of the origin of their stone, and of the historical background to better understand the commercial context of this important shipwreck.

It is noteworthy that all the merchantmen south of Croton sank not only in close proximity, which testifies to the treachery of this stretch of coastline for navigation in antiquity, but also-in the case of the Punta Scifo A and B shipwrecks-with their extremities facing the shoreline. It is possible to deduce that both marble carriers were lost in the same way, probably during a Scirocco storm, and that both may have been part of a single convoy that left Asia Minor and was headed to an unknown harbor in the western Mediterranean. Close comparison of both sites, and new research both in the museums of Croton and Reggio Calabria, and on the seafloor of Punta Scifo, may provide an answer.

Too little information is available regarding the ships wrecked at Punta Cicala, Capo Cimiti and Capo Bianco to reconstruct their history. The presence of the Capo Bianco shipwreck in the waters of Croton illustrates that this sea lane was still active and trafficked until the fifth or sixth century A.D.
CHAPTER III
THE PUNTA SCIIFO A (“PAOLO ORSI”) SHIPWRECK

The Punta Scifo A shipwreck, also known as the “Paolo Orsi” wreck, is named after the archaeologist who first studied its artifacts between 1908 and 1921.\textsuperscript{104} The site is located at a depth of only 4.5 m, 200 m offshore, covering an area of ca. 12 m x 15 m, on a rocky seafloor intermixed with some sandy spots. Figure 28 shows the remains of the vessel as they appeared during the 2005 INA-RPM survey. Due to the shallow depth, this multibeam image is incomplete: three missing blocks, along with the only column shaft seen in 2005 and 2006, have been added, drawn to scale.

However heavily disturbed the site appears today, with only four blocks and one column shaft from the original cargo, a comprehensive analysis of the remains can still provide useful information. For example, it is possible to determine the southeast-northwest orientation of the vessel when it sank, lying perpendicular to the shore, on the basis of the orientation of the extant marble elements. The weight of the items still under water, combined with the weight of the artifacts raised to the surface, suggests a marble cargo of approximately 200 tons.

\textsuperscript{104} See Chapter II, pp. 41-5 for more information regarding Paolo Orsi and the history of the shipwreck discovery.
Fig. 28. Multibeam image of the seafloor at Punta Scifo A, with BLC 11 visible in the dataset. The positions of the remaining three marble blocks and the single column shaft have been added to the drawing. (Drawing: D. Bartoli, Multibeam data: INA-RPM Nautical Foundation).
The Underwater Site

During the 2006 research season it was possible to take measurements of the blocks left in situ. Their dimensions and tonnage are given in Table 6. Block 10, however, is actually larger than 1.30 m wide and 0.30 m thick; as the survey permit did not allow for excavation, it was impossible to dig around the partially-covered block to record its full dimensions.

Table 6. Dimensions and tonnage of the Punta Scifo A’s marble items still on the seafloor. Measurements taken in situ, using PhotoModeler.™

<table>
<thead>
<tr>
<th>Artifact</th>
<th>Length (m)</th>
<th>Width/Diam. (m)</th>
<th>Height (m)</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLC 10</td>
<td>1.65</td>
<td>&gt;1.30</td>
<td>&gt;0.30</td>
<td>2.90 (est.)</td>
</tr>
<tr>
<td>BLC 11</td>
<td>2.28</td>
<td>2.45</td>
<td>0.62</td>
<td>8.87</td>
</tr>
<tr>
<td>BLC 12</td>
<td>2.30</td>
<td>2.20</td>
<td>0.49</td>
<td>6.35</td>
</tr>
<tr>
<td>BLC 13</td>
<td>4.65</td>
<td>1.43</td>
<td>0.62</td>
<td>10.56</td>
</tr>
<tr>
<td>COL 7</td>
<td>4.30</td>
<td>0.58</td>
<td></td>
<td>2.91</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>ca. 31.59</strong></td>
</tr>
</tbody>
</table>

According to these calculations, the four blocks and the single column shaft still under water weigh ca. 31.59 metric tons. Considering that in 1915 Engineer Forcellini estimated to have raised ca. 150 tons of marble from the seafloor,\(^{106}\) and that in 1983 Aquarius raised

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\(^{105}\) Comparing BLC 10 SF with the other blocks reported in Table 11, p.108, it is possible to estimate that its total weight should be at least 75 % more, or ca. 2.90 tons. No block from Punta Scifo A weighs, indeed, less that 2.87 tons (BLC 4).

\(^{106}\) For Eng. Forcellini’s marble tonnage estimate see Orsi 1921, 496 along with the original record dated May 15, 1915 in Appendix 2.
five more *labra*, two pedestals, and three squared pedestals,\(^{107}\) it is possible to postulate that this Roman merchantman was carrying ca. 200 tons of marble when it sank at Punta Scifo. The ship was wrecked in the early third century A.D., as revealed by the consular inscriptions and Kapitän 2 amphoras on board, which provide a terminus post quem to date the wreck.

Using the multibeam image as a basis for reconstructing the site, and adding scaled drawings of the blocks and column shaft measured in 2006, as well as all material raised in past years, the tentative dimensions of the Roman merchantman can be proposed. According to these data, the original ship was ca. 30 m long and 10 m wide. The heaviest marble blocks were placed amidships, and beside them, the column shafts. The three blocks BLC 11-12-13 and the adjacent column shaft COL 7 are the heaviest items of the entire cargo after BLC 14, and it seems unlikely that they have moved from their original resting place on the seabed when the ship sank. They provide evidence both that the ship was oriented perpendicularly to the shore when it was lost, and that all the column shafts were placed along the ship’s longitudinal axis.\(^{108}\) The cargo had to be placed as close as possible to the keel in order to lower the center of gravity of the vessel, and make it more stable; lighter elements such marble slabs and basins were probably placed in a second row atop the blocks. Figure 29 provides a three-dimensional rendering of the marble elements from Punta Scifo A drawn to scale.

\(^{107}\) Pensabene 2002a, 36-7.

\(^{108}\) See Table 11, p. 108 for the detailed dimensions of every single block. The shipwrecks from Mahdia, Giardini Naxos, Marzamemi 1, and Capo Taormina are a testament to such an arrangement of columns being standard procedure in Roman times. Mahdia: see Höckmann 1994, 53-4; Giardini Naxos: see Basile 1988, 135; Marzamemi 1: see Kapitan 1971, 301-2; Capo Taormina: see Kapitan 1971, 304.
Fig. 29. Three-dimensional digital rendering of part of the largest marble elements from Punta Scifo A. Their disposition gives a hull ca. 30 m long and 10 m wide. (Image: D. Bartoli).
A small portion of the bottom of the hull, 3 x 3 m, was found in 1983.\textsuperscript{109} The remains were described as “exceptionally strong, with 8 cm-thick planking and two rows of wedges [tenons] alternating and fixed by wooden pegs.”\textsuperscript{110} The two rows of mortise-and-tenon joints indicate that the merchantman, in order to carry its marble cargo, was heavily built. The two rows of fasteners would have produced a stronger hull, and minimized movement and distortion of the hull. The ship might also have been double-planked, even if it is impossible to be certain without observing the keel, which should have been double-rabbeted in order to fit the two rows of planks.\textsuperscript{111}

Without further evidence it is also difficult to say if the Punta Scifo A marble carrier was a sailing ship or a large barge that, for safety reasons, was towed behind another vessel. It is a safe guess that it was mostly undecked to facilitate the loading and unloading of the column shafts and blocks. Small living areas were probably located at the bow and at the stern where, according to Freschi’s data, a galley existed.

The Punta Scifo A shipwreck was carrying, according to Pensabene’s and my own visual analyses, a mixed cargo of the most expensive and cheapest varieties of marble used in the Imperial age: \textit{pavonazzetto} from Docimium, and Proconnesian from the eponymous island in the Sea of Marmara. From Diocletian’s \textit{Edict on Maximum Prices}, enacted in A.D. 301, it is known that \textit{pavonazzetto} was one of the most expensive marbles of the

\textsuperscript{109} Lattanzi 1984a, 574-5.
\textsuperscript{110} Lattanzi 1984a, 574; Lattanzi 1984c, 11.
\textsuperscript{111} The Madrague de Giens shipwreck, sunk in southern France in the middle of the first century B.C. with ca. 400 tons of cargo, provides a well-known example of a double-planked hull. See: Steffy 1994, 62-5. Actual remains of a marble carrier with a double-planked hull have been found at Mahdia (Höckmann 1994, 61). The only other marble carrier of which hull remains are preserved, the Torre Sgarrata shipwreck, had planks joined with one single layer of mortise-and-tenon joints. Two small fragments of wood, suspected to be the ship’s keel, were poorly preserved; there is no enough information available to determine if they were double-rabbeted. (Throckmorton 1989, 265; Antonelli 2002, 77).
time, costing 200 denarii per Roman foot, while Proconnesian was only 40 denarii per Roman foot.\footnote{In Diocletian’s Edict the lowest-paid worker, a farm laborer, earned 25 denarii per day, while 50 denarii were the daily wages of a mason, and 150 denarii of a frescoes painter. The lawyer, who had the highest-paid job, received 1,250 denarii for a trial. (Giacchero 1974, 276-9). These data give a general idea of the cost of marble in antiquity. For more information regarding the Edict, see Appendix 4.} Further study of this material should include isotopic analysis of the marble to corroborate the visual identification.

**Reconstructing the Cargo of a Roman *Navis Lapidaria***

The Punta Scifo A shipwreck, as we have seen, was almost completely salvaged, and the five artifacts still under water do not accurately reflect the original size and dimensions of the ancient marble carrier. Consequently, any reconstruction of the original assemblage can only be attempted after a meticulous review of Orsi’s original reports and articles, Pensabene’s analyses and Freschi’s data, along with a comprehensive overview of the disparate artifacts, currently scattered throughout Calabria. Some of the marble elements are stored in the Archaeological Museum of Croton (Fig. 16), some are housed in the Nautical Museum of Capo Colonna, some have been used in the modern monument representing Ulysses’ ship in Caputi Square in Croton (Fig. 30), a few more are located in Corazzo, and one basin is in Tarentum.

Combining all of the available information, my calculations show that a total of at least 69 marble items were carried on board the Punta Scifo A merchantman (Table 7). Even this must be considered a conservative estimate; due to the hasty nature of the
recovery efforts at the beginning of the 20th century, the artifacts in the poorest state of preservation were given little or no attention.

Fig. 30. The marble items from the Punta Scifo A wreck site, reused in the monument to Ulysses in Caputi Square in Croton. (Photo: D. Bartoli).

Indeed, in 1911 Orsi mentioned “some other small, broken, extraordinarily corroded column shafts”\(^{113}\) of which the exact number is unknown. In 1915 the discoverers described “11 pieces encrusted or corroded, and therefore of undefined shape.”\(^{114}\) The artifacts recovered by Aquarius in 1983 are better documented. Along with the marble items mentioned on p. 78, were discovered a few little tablets made of marble and slate (MOB 1), three amphora necks (MOB 3-5), some coarse ware plates, lids, and trefoil pitchers (MOB 6), two bronze ladles (MOB 7), a bronze sliding stand for an oil lamp

\(^{113}\) Orsi 1911, 121.
\(^{114}\) Original report, June 2, 1915, 2.
(MOB 8), and a lead plate representing Heracles holding a hind (MOB 9). According to my catalog, the Punta Scifo A shipwreck was carrying no fewer than 16 column shafts, 15 bases decorated with lions’ paws, 14 blocks, 13 basins, six statue pedestals, four marble slabs, and one statuette. Forty-two artifacts were available for study, while 27 others are missing at present. Table 7 presents all the marble artifacts from Punta Scifo A arranged according to type classification of three letters followed by their catalog number. The catalog nomenclature is found on p. ix, and pictures for each item appear alongside in Appendix 1. Little is known regarding the five Attic column bases (ABA 1-5) and three Ionic column capitals (ICA 1-3) today located at the Nautical Museum of Capo Colonna, and in the “Caputi” public square in Croton. They are not mentioned in Orsi’s reports, and while their maritime provenience is clear due to the sea weathering and encrustation still visible on their surfaces, it is not known whether they came from the Punta Scifo A shipwreck or from another site in the area of Croton. My own impression, however, is that both Paolo Orsi and the Forcellini company, who recorded even heavily-eroded artifacts like the pedestal MPL 3, would not have omitted such well-preserved bases and capitals from their accounts. I suspect therefore that these items come from a different site.

According to Pensabene, who recorded three bases and three capitals of the total eight in 1978, their marble comes from Docimium, but it is not pavonazzetto. It is a whiter variety of stone, similar to pavonazzetto but without the purple veins, called White Synnadic. For this reason they are included in the Catalog in Appendix 1, but are not associated with the artifacts from Punta Scifo A.115

115 Pensabene 1978a, 108.
Table 7. Catalog of marble artifacts from the Punta Scifo A shipwreck. (1908-2007).

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>Discovery Year</th>
<th>Description (Original Reference)</th>
<th>Current Location</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>LABRA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAB 1</td>
<td>1908</td>
<td>Diameter: 2.0 m Height: 0.85 m</td>
<td>Tarentum</td>
<td>Orsi 1911, 119</td>
</tr>
<tr>
<td>LAB 2</td>
<td>1909</td>
<td>Diameter: 1.88 m Height: 1.20 m</td>
<td>Entrance of Croton, Archaeological Museum</td>
<td>Orsi 1911, 119-20</td>
</tr>
<tr>
<td>LAB 3</td>
<td>1909</td>
<td>Diameter: 1.88 m Height: 1.20 m</td>
<td>Entrance of Croton, Archaeological Museum</td>
<td>Orsi 1911, 119-20</td>
</tr>
<tr>
<td>LAB 4</td>
<td>1983</td>
<td>“Fragments of 1 labrum 1.02 m wide.”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Pensabene 2002a, 36-7</td>
</tr>
<tr>
<td>LAB 5</td>
<td>1915</td>
<td>“Labrum, 13 fragments.”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Report May 3, 1915, 1</td>
</tr>
<tr>
<td>LAB 6</td>
<td>1915</td>
<td>“Labrum, just the bottom and pedestal.”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Report May 3, 1915, 1</td>
</tr>
<tr>
<td>LAB 7</td>
<td>1915</td>
<td>“Labrum with rims corroded or broken, base extremely well preserved, slightly chopped at the lower edge.”</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 1</td>
</tr>
<tr>
<td>LAB 8</td>
<td>1915</td>
<td>“Labrum, very well preserved.”</td>
<td>Unknown</td>
<td>Report May 3, 1915, 1</td>
</tr>
<tr>
<td>LAB 9</td>
<td>1915</td>
<td>“Labrum, very well preserved.”</td>
<td>Unknown</td>
<td>Report May 3, 1915, 1</td>
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<tr>
<td>LAB 10</td>
<td>1983</td>
<td>“Fragments of 1 labrum 1.02 m wide.”</td>
<td>Unknown</td>
<td>Pensabene 2002a, 36-7</td>
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</table>
Table 7 (continued).

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>Discovery Year</th>
<th>Description (Original Reference)</th>
<th>Current Location</th>
<th>Source</th>
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</thead>
<tbody>
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<td>LAB 11</td>
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<td>Unknown</td>
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<tr>
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<td>“Fragments of 1 labrum 1.02 m wide.”</td>
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<td>LAB 13</td>
<td>1983</td>
<td>“Fragments of 1 labrum 1.02 m wide.”</td>
<td>Unknown</td>
<td>Pensabene 2002a, 36-7</td>
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<tr>
<td>**Total 13</td>
<td></td>
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<tr>
<td>**Relocated 7</td>
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</tr>
<tr>
<td><strong>HIGH PEDESTALS</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>LIONS’ PAWS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPL 1</td>
<td>1915</td>
<td>“Small pedestal circular in section, fragmentary, having on the lower part the inscription &quot;EL.&quot;”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Report May 2, 1915, 1</td>
</tr>
<tr>
<td>HPL 2</td>
<td>1915</td>
<td>“A pedestal with square base, lions’ paws, extremely well preserved.”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Report May 3, 1915, 1</td>
</tr>
<tr>
<td>HPL 3</td>
<td>1915</td>
<td>“A pedestal with square base, lions’ paws, fairly well preserved.”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Report May 3, 1915, 1</td>
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<tr>
<td>HPL 4</td>
<td>1915</td>
<td>“A pedestal with cyma (?) recta, with lions’ paws, quite well preserved.”</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 3, 1915, 1</td>
</tr>
<tr>
<td>HPL 7</td>
<td>1983</td>
<td>“A pedestal with lions’ paws.”</td>
<td>Unknown</td>
<td>Pensabene 2002a, 37</td>
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</tbody>
</table>
Table 7 (continued).

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>Discovery Year</th>
<th>Description (Original Reference)</th>
<th>Current Location</th>
<th>Source</th>
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<tr>
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<td><strong>MED. PEDESTALS</strong></td>
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<tr>
<td><strong>LIONS’ PAWS</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MPL 1</strong></td>
<td>1915</td>
<td>&quot;Pedestal with squared section, with lions’ paws and circular torus, frustum- of-cone like.&quot;</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 1</td>
</tr>
<tr>
<td><strong>MPL 2</strong></td>
<td>1915</td>
<td>&quot;Pedestal with squared section, with lions’ paws and circular torus, frustum- of-cone like.&quot;</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 1</td>
</tr>
<tr>
<td><strong>MPL 3</strong></td>
<td>1915</td>
<td>&quot;A shapeless artifact, due to its corrosion, squared in section.&quot;</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 1</td>
</tr>
<tr>
<td>Total 3</td>
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<td>Relocated 3</td>
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<td><strong>LOW PEDESTALS</strong></td>
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<td><strong>LIONS’ PAWS</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>LPL 1</strong></td>
<td>1915</td>
<td>&quot;Pedestal with squared section, with lions’ paws and circular torus, frustum- of-cone like.&quot;</td>
<td>Nautical Museum Capo Colonna</td>
<td>Report May 2, 1915</td>
</tr>
<tr>
<td><strong>LPL 2</strong></td>
<td>1915</td>
<td>“Pedestal with squared section and lions’ paws.”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Report May 2, 1915</td>
</tr>
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<td><strong>LPL 3</strong></td>
<td>1983</td>
<td>“Pedestal with squared section and lions’ paws. Width: 1 m, Height: 0.42.”</td>
<td>Unknown</td>
<td>Pensabene 2002a, 37</td>
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<td><strong>LPL 4</strong></td>
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<td>“Pedestal with squared section and lions’ paws. Width: 1 m, Height: 0.42.”</td>
<td>Unknown</td>
<td>Pensabene 2002a, 37</td>
</tr>
<tr>
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<td>Discovery Year</td>
<td>Description (Original Reference)</td>
<td>Current Location</td>
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<td>1983</td>
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<td>Unknown</td>
<td>Pensabene 2002a, 37</td>
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<td>Total 5</td>
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<tr>
<td>Relocated 2</td>
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<tr>
<td><strong>COLUMN SHAFTS</strong></td>
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</tr>
<tr>
<td>COL 1</td>
<td>1909</td>
<td>“Length: 4.20 m Diameter: 0.58 m Protective Ring, Inscription.”</td>
<td>Nautical Museum</td>
<td>Orsi 1911, 121-23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Capo Colonna</td>
<td></td>
</tr>
<tr>
<td>COL 2</td>
<td>1915</td>
<td>“Column shaft, heavily eroded.”</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 1</td>
</tr>
<tr>
<td>COL 3A</td>
<td>1915</td>
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<td>Report May 2, 1915, 1</td>
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<td>COL 3B</td>
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<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 1</td>
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<td>COL 3C</td>
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<td>“Column shaft portion, heavily eroded.”</td>
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<td>Report May 2, 1915, 1</td>
</tr>
<tr>
<td>COL 4</td>
<td>1915</td>
<td>“Column shaft, partly eroded”</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 1</td>
</tr>
<tr>
<td>COL 6</td>
<td>1915</td>
<td>“Large column with inscription.”</td>
<td>Corazzo</td>
<td>Report May 2, 1915, 1</td>
</tr>
</tbody>
</table>
Table 7 (continued).

<table>
<thead>
<tr>
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<tr>
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<td>“Heavily eroded, Length: 3.16 m</td>
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<td></td>
<td></td>
<td>Diameter: 0.57 m, Protective Ring. Small lead plate on the lower base (72 x 68 mm).”</td>
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<td>COL 8</td>
<td>1909</td>
<td>No description available</td>
<td>Unknown</td>
<td>Valente 1973, 51 n.31</td>
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<tr>
<td>COL 9</td>
<td>1915</td>
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<td>Unknown</td>
<td>Report May 2, 1915, 1</td>
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<td>COL 10</td>
<td>1915</td>
<td>“Long column with inscription Diameter: 0.64 m.”</td>
<td>Unknown</td>
<td>Report May 2, 1915, 1</td>
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<tr>
<td>COL 11</td>
<td>1915</td>
<td>“Long column with inscription.”</td>
<td>Unknown</td>
<td>Report May 2, 1915, 1</td>
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<td>COL 12</td>
<td>1915</td>
<td>“Column with inscription (?), small.”</td>
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<td>COL 13</td>
<td>1915</td>
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<td>Unknown</td>
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<td>COL 14</td>
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<tr>
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<td>1915</td>
<td>“Big architectural element.”</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 2</td>
</tr>
<tr>
<td>BLC 5</td>
<td>1915</td>
<td>“Big architectural element.”</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Report May 2, 1915, 2</td>
</tr>
<tr>
<td>BLC 6</td>
<td>1915</td>
<td>“Block (with inscriptions).”</td>
<td>Corazzo</td>
<td>Report May 3, 1915, 1</td>
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<tr>
<td>BLC 7</td>
<td>1915</td>
<td>“Block.”</td>
<td>Corazzo</td>
<td>Report May 3, 1915, 1</td>
</tr>
<tr>
<td>BLC 8</td>
<td>1915</td>
<td>“Big architectural element.”</td>
<td>Corazzo</td>
<td>Report May 2, 1915, 2</td>
</tr>
<tr>
<td>BLC 9</td>
<td>1915</td>
<td>“Huge Block.”</td>
<td>Corazzo</td>
<td>Report May 3, 1915, 1</td>
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Table 7 (continued).

<table>
<thead>
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<th>Current Location</th>
<th>Source</th>
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<tr>
<td>BLC 14</td>
<td>1915</td>
<td>“Huge. Fell in the water [1915], Croton dock. (3.95 x 2.5 x 0.84, 22 tons).”</td>
<td>Unknown</td>
<td>Orsi 1921, 493 Report May 2, 1915, 2 Report May 15, 1915, 1</td>
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<td>SLABS</td>
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<tr>
<td>SLB 1</td>
<td>1915</td>
<td>“Well preserved slab. 2.10 x 1.05 x 0.07 m.”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Orsi 1921, 494 Report May 3, 1915, 1</td>
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<td>SLB 2</td>
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<td>“Poorly preserved marble slab.”</td>
<td>Unknown</td>
<td>Report May 2, 1915, 1</td>
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<td>SLB 3</td>
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<td>“Eight fragments of marble slabs.”</td>
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<td>SLB 4</td>
<td>1983</td>
<td>“Fragments.”</td>
<td>Unknown</td>
<td>Pensabene 2002a, 37</td>
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<td>Total 14</td>
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<td>Nautical Museum Capo Colonna</td>
<td>Orsi 1921, 494 Report May 2, 1915, 2</td>
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<td>STP 2</td>
<td>1915</td>
<td>“Big parallelepiped pedestal.”</td>
<td>Nautical Museum Capo Colonna</td>
<td>Orsi 1921, 494 Report May 3, 1915, 1</td>
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<td>STP 3</td>
<td>1915</td>
<td>“Big parallelepiped pedestal, height 1.55 m.”</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Orsi 1921, 494 Report May 2, 1915, 2</td>
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<tr>
<td>STP 4</td>
<td>1915</td>
<td>“Big parallelepiped pedestal, height 1.55 m.”</td>
<td>Corazzo</td>
<td>Orsi 1921, 494 Report May 2, 1915, 2 Pensabene 1978, 116, n.7</td>
</tr>
<tr>
<td>STP 5</td>
<td>1915</td>
<td>“Big parallelepiped pedestal, height 1.55 m.”</td>
<td>Corazzo</td>
<td>Orsi 1921, 494 Report May 2, 1915, 2</td>
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<td>STP 6</td>
<td>1915</td>
<td>“Big parallelepiped pedestal, height 1.55 m.”</td>
<td>Unknown</td>
<td>Orsi 1921, 494 Report May 2, 1915, 2</td>
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<tr>
<td>Total 6</td>
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<td><strong>Artifacts not mentioned in Paolo Orsi’s reports</strong></td>
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<td><strong>IONIC CAPITALS</strong></td>
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<tr>
<td>ICA 1</td>
<td>Unknown</td>
<td>Height 0.267 m, Width 0.485 m</td>
<td>Nautical Museum</td>
<td>Pensabene 1978, 116-7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Capo Colonna</td>
<td></td>
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<tr>
<td>ICA 2</td>
<td>Unknown</td>
<td>Height 0.295 m, Width 0.52 m</td>
<td>Nautical Museum</td>
<td>Pensabene 1978, 108</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Capo Colonna</td>
<td></td>
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<tr>
<td>ICA 3</td>
<td>Unknown</td>
<td>No Measurements</td>
<td>Nautical Museum</td>
<td>Pensabene 1978, 108</td>
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<td></td>
<td></td>
<td>Capo Colonna</td>
<td></td>
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<td><strong>ATTIC BASES</strong></td>
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<tr>
<td>ABA 1</td>
<td>Unknown</td>
<td>Height 0.305 m / Base 0.27m x 0.725 m Diam 0.62 m</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Pensabene 1978, 108</td>
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<tr>
<td>ABA 2</td>
<td>Unknown</td>
<td>0.74 m x 0.74 m /Height 0.205 m</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Pensabene 1978, 108</td>
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</table>
Table 7 (continued).

<table>
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<tr>
<th>Artifacts not mentioned in Paolo Orsi’s reports</th>
<th>Discovery Year</th>
<th>Description (Original Reference)</th>
<th>Current Location</th>
<th>Source</th>
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<tbody>
<tr>
<td>ABA 3</td>
<td>Unknown</td>
<td>0.68 m / Diam.0.61 m / Height 0.235 m</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Pensabene 1978, 108</td>
</tr>
<tr>
<td>ABA 4</td>
<td>Unknown</td>
<td>Height 0.315 m / Base 0.72 m x 0.68 m Diam 0.565 m</td>
<td>Square “Antonio Caputi,” Croton</td>
<td>Unpublished</td>
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<tr>
<td>ABA 5</td>
<td>Unknown</td>
<td>(0.73 m x 0.68 m broken / Height 0.23 m Diam 0.615 m)</td>
<td>Capo Colonna</td>
<td>Unpublished</td>
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<tr>
<td>Total 5</td>
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The Marble Elements from Punta Scifo A: A New Analysis

Architectural Elements

Column Shafts

This review of the marbles from the Punta Scifo A shipwreck begins with six column shafts that, of the 16 or more elements raised between 1909 and 1915, were the only ones still visible in Croton and Corazzo during the 2005 and 2006 field seasons.

Of the six surviving column shafts, COL 1 and COL 5 are the best preserved. COL 2 and COL 3A are on display in “Caputi” square and have been arranged in such a way as to prevent accurate archaeological study. They are mounted upright in the ground, which precludes measuring their full lengths and determining if a protective collar is present at the lower extremity. In the photograph reproduced in Fig. 17, which shows part of the Punta Scifo A cargo unloaded at the dock of Croton, one can see nine column shafts, seven of which have protective collars. It is likely, therefore, that the lower extremities of COL 2 and COL 3A have collars as well. COL 4 is a small, heavily eroded fragment that precludes any means of reconstructing the dimensions of the original shaft; and COL 6 was broken in three fragments after discovery, with recent fractures devoid of any sign of marine encrustation.

Even with these limitations, the available material provides several clues to better

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116 A collar is a normal feature of column shafts quarried throughout the Empire. The collar is usually left at each extremity of the shaft, and its function was primarily to protect the shaft if the column had to be rolled for transportation, and to facilitate lifting with ropes. Additionally, the collars provided some leeway for lengthening or shortening the column once in place, and a surface for carving the projecting moldings at either end of the finished column.
understand the nature of the original cargo. The dimensions of the column shafts visible in Croton and Corazzo, described in detail in the Catalog (Appendix 1), are summarized in Table 8. Their dimensions have been provided both in meters and in Roman feet (1 Roman ft = 0.296 m), to better understand their proportions from the mindset of the ancient architect. The sign “>” indicates a broken shaft with an original length longer than what has survived. Where possible, a plausible reconstruction of the total length is provided in parentheses. The sign “~” implies a certain degree of approximation, due to a lack of reliable data.

Table 8. Diameter, length, and proportion between the column shaft base and its height, in meters and Roman feet.

<table>
<thead>
<tr>
<th>Artifact</th>
<th>Diam. (m)</th>
<th>Diam. (R. ft)</th>
<th>Length (m)</th>
<th>Length (R. ft)</th>
<th>Ratio (Diam./Length)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COL 1</td>
<td>0.57 (collar)</td>
<td>1 ⅞</td>
<td>&gt; 3.14 (4.20)</td>
<td>14 ¼</td>
<td>1:8 ⅝</td>
</tr>
<tr>
<td></td>
<td>0.49 (1st break)</td>
<td>1 ⅝</td>
<td>1:7 ⅜</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.50 (2nd break)</td>
<td>1 ¾</td>
<td>1:8 ⅜</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COL 2</td>
<td>0.65</td>
<td>2 ¼</td>
<td>4.84</td>
<td>16 ¾</td>
<td>1:7 ⅜</td>
</tr>
<tr>
<td>COL 3A</td>
<td>0.58</td>
<td>2</td>
<td>5.89</td>
<td>19 ¾</td>
<td>1:10 ⅛</td>
</tr>
<tr>
<td>COL 3B</td>
<td>0.54</td>
<td>1 ⅝</td>
<td>5.82</td>
<td>&gt;19 ¾</td>
<td>~1:8 ½</td>
</tr>
<tr>
<td>COL 3C</td>
<td>0.54</td>
<td>1 ⅝</td>
<td>5.82</td>
<td>&gt;19 ¾</td>
<td>~1:8 ½</td>
</tr>
<tr>
<td>COL 4</td>
<td>0.45</td>
<td>1 ½</td>
<td>1.10</td>
<td>3 ¾</td>
<td>1:2 ½</td>
</tr>
<tr>
<td>COL 5</td>
<td>0.58</td>
<td>2</td>
<td>4.300</td>
<td>14 ½</td>
<td>1:7 ¾</td>
</tr>
<tr>
<td>COL 6</td>
<td>0.68</td>
<td>2 ¼</td>
<td>5.82</td>
<td>&gt;19 ¾</td>
<td>~1:8 ½</td>
</tr>
</tbody>
</table>

The first peculiarity that stands out when observing the lengths of the column shafts in Roman feet is that the odd numbers are missing. The shafts appear to grow incrementally from 14, to 16, possibly 18, and 20 Roman feet, while intermediate lengths of 15, 17, 19, and 21 feet are missing. This is not coincidental. In a systematic review of 82 column
shafts quarried throughout the Roman Empire, Paolo Barresi noted that the vast majority have lengths in multiples of even numbers.¹¹⁷ Column shafts of the following lengths are common: 12 R. ft (5 entries), 14 R. ft (4 entries), 16 R. ft (11 entries), 20 R. ft (8 entries), 24 R. ft (15 entries), 30 R. ft (10 entries), 40 R. ft (8 entries). Less common are heights of 17 R. ft (2 entries), 23 R. ft (1 entry), 25 R. ft (3), and totally absent lengths of 13, 15, 21, and 27 R. ft. The Romans thus found a way to organize in a practical way the demand and supply of marble architectural elements. With an established system of measurements, architects knew what they were going to get from the quarries, and quarry contractors were able to follow well-defined production guidelines.

A second point is that the ratio between a column’s lower diameter and height does not appear to be uniform among the Punta Scifo column shafts. The calculated ratios vary from 1:7 to 1:8, 1:9, and even 1:10. Allowing a certain degree of approximation due to the artifacts’ poor state of preservation, and keeping in mind that protective collars could have been trimmed to make a column fit well in the building, the relation between lower diameter and column height varies from the ratio of 1:8 which characterizes the majority of monolithic column shafts of Imperial date.¹¹⁸

These newly-quarried shafts, increasing gradually in size according to a well-defined set of architectural rules, were probably not meant to be used in a small building with a single row of columns of identical dimensions (such as the peristyle of a Roman villa), but were more likely part of a larger architectural enterprise, possibly commissioned by Imperial authority, in which a series of colonnades, possibly superimposed, required sets of column shafts of different heights. According to P. Orsi, a

large number of these shafts were marked with quarry inscriptions, which are usually connected with Imperial ownership and a centralized inventory system, thus strengthening this hypothesis.\textsuperscript{119} While the 16 column shafts originally found at Punta Scifo A were not sufficient to create a monument in itself, they may well have been part of a larger consignment shipped from Asia Minor for a building project somewhere between Croton and points further west.\textsuperscript{120}

Orsi mentioned a rectangular lead seal of 72 x 68 mm, inserted at the end of one of the two columns found in 1909, which represents an unusual variation of the Roman standard of using circular lead seals to mark the imperial ownership of marble items.\textsuperscript{121} It is a pity that this seal disappeared in the years following Orsi’s publication, since it could have provided precious information regarding the ownership or intended destination of the marble cargo.

\textit{Parallels for the Punta Scifo A Columns}

The possibility that these columns were meant for the peristyle of a private villa, such as the House of the Colored Capitals in Pompeii, is unlikely. While the House of the Colored Capitals has a total of 16 Ionic columns, four on the short and six on the long sides, with lower diameters measuring 0.58-0.60 m and shafts 4.38 m high,\textsuperscript{122} the Punta Scifo columns are markedly different in size. This could mean that they are part of a mixed cargo destined for different applications or that the shipment was conceived for a single building, whose columns were superimposed. One example of the use of

\textsuperscript{119} See Ward-Perkins 1992a, 26.
\textsuperscript{120} For a classification of small, medium, and large column shafts, see Tables 9-10, pp. 98-99.
\textsuperscript{121} Orsi 1911, 121. See Spagnoli 2002, 492-6 on Roman lead seals.
\textsuperscript{122} Sear 2006, 167-70.
superimposed columns is the basilica in the southwest corner of the forum at Pompeii, with a total of 16 columns of four different sizes superimposed in two levels (Fig. 31). The basilica’s columns are both Ionic and Corinthian, and it is possible that, once completed with capitals and bases, the shafts from Punta Scifo A would have been finished in a similar way. The differences between an Ionic column and a Corinthian column are minimal, since “the Corinthian column is essentially an Ionic shaft and base lengthened by substituting the low Ionic capital with a tall Corinthian capital.”

Fig. 31. The façade of the Basilica in the forum of Pompeii. Note the mixed Corinthian and Ionic columns, of four different sizes, superimposed in two levels.

(Photo: D. Bartoli.)

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123 It must be remarked, however, that the Basilica in Pompeii is much earlier in date (first century A.D.).
124 According to Wilson Jones, in the third century A.D. it became acceptable to reuse marble elements, particularly bases and capitals, in new monuments. (Wilson Jones 2000, 152). This might be a possible explanation for the apparent absence of bases and capitals from the Punta Scifo A shipwreck.
125 Adam 1990, 92.
Further parallels can be used to contextualize the columns from Punta Scifo. Paolo Barresi’s study of 82 column shafts dating from the time of the Flavians (A.D. 69-96) onwards, summarizes their dimensions: 43.9% of them have a length less than or equal to 20 R. ft, the maximum length found at Punta Scifo, and 56.1% have a length between 22 to 50 R. ft. Columns twice as long as those of the Punta Scifo A cargo were, therefore, not uncommon in Roman Imperial times (Table 9).

Table 9. Number and lengths of column shafts of Roman imperial age. (After Barresi 2002, 70).

<table>
<thead>
<tr>
<th>Column shafts Length (R.ft)</th>
<th>Column shafts Length (m)</th>
<th>Column shafts #</th>
<th>%</th>
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<tr>
<td>12</td>
<td>3.55</td>
<td>5</td>
<td>6.09</td>
</tr>
<tr>
<td>14</td>
<td>4.14</td>
<td>4</td>
<td>4.88</td>
</tr>
<tr>
<td>16</td>
<td>4.74</td>
<td>11</td>
<td>13.41</td>
</tr>
<tr>
<td>17</td>
<td>5.03</td>
<td>2</td>
<td>2.44</td>
</tr>
<tr>
<td>18</td>
<td>5.33</td>
<td>4</td>
<td>4.88</td>
</tr>
<tr>
<td>18 2/3</td>
<td>5.53</td>
<td>2</td>
<td>2.44</td>
</tr>
<tr>
<td>20</td>
<td>5.92</td>
<td>8</td>
<td>9.76</td>
</tr>
<tr>
<td><strong>Total (12-20 R.ft)</strong></td>
<td></td>
<td><strong>36</strong></td>
<td><strong>43.9</strong></td>
</tr>
<tr>
<td>22</td>
<td>6.51</td>
<td>1</td>
<td>1.22</td>
</tr>
<tr>
<td>23</td>
<td>6.81</td>
<td>1</td>
<td>1.22</td>
</tr>
<tr>
<td>24</td>
<td>7.10</td>
<td>15</td>
<td>18.29</td>
</tr>
<tr>
<td>25</td>
<td>7.40</td>
<td>1</td>
<td>1.22</td>
</tr>
<tr>
<td>26</td>
<td>7.70</td>
<td>4</td>
<td>4.88</td>
</tr>
<tr>
<td>28</td>
<td>8.29</td>
<td>1</td>
<td>1.22</td>
</tr>
<tr>
<td>30</td>
<td>8.88</td>
<td>10</td>
<td>12.19</td>
</tr>
<tr>
<td>40</td>
<td>11.84</td>
<td>8</td>
<td>9.76</td>
</tr>
<tr>
<td>50</td>
<td>14.80</td>
<td>5</td>
<td>6.09</td>
</tr>
<tr>
<td><strong>Total (22-50 R.ft)</strong></td>
<td></td>
<td><strong>46</strong></td>
<td><strong>56.1</strong></td>
</tr>
<tr>
<td><strong>Total (12-50 R.ft)</strong></td>
<td></td>
<td><strong>82</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

N. Asgari created a typology of column shafts abandoned at the Proconnesian quarries in Saraylar, cataloging 41 examples and dividing them into five different classes according
to their diameters. As is shown in Table 10, all of the column shafts from Punta Scifo A fall into either the small or medium of Asgari’s categories.

Table 10. The Punta Scifo A columns according to Proconnesian size-groups. (After Asgari 1992, 74).

<table>
<thead>
<tr>
<th>Column shafts</th>
<th>Very Large (Ø ≥ 0.90 m; ≥ 3 R.ft)</th>
<th>Large (Ø 0.90-0.70 m; 21/2-3 R.ft)</th>
<th>Medium (Ø 0.70-0.60 m; 2-21/2 R.ft)</th>
<th>Small (Ø 0.60-0.40 m; 11/2-2 R.ft)</th>
<th>Very Small (Ø 0.30-0.40 m; 1-11/2 R.ft)</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>18</td>
<td>16</td>
<td>41</td>
</tr>
<tr>
<td>%</td>
<td>2.44 %</td>
<td>4.88 %</td>
<td>9.76 %</td>
<td>43.90 %</td>
<td>39.02 %</td>
<td>100%</td>
</tr>
</tbody>
</table>

The Roman quarries at Docimium have been seldom studied to date. A thick layer of debris covers a large extent of the ancient production area. M. Waelkens noticed several column shafts and column drums during his 1982 and 1987 surveys, but their dimensions have not been recorded. The column shafts unused and abandoned in Fiumicino canal (Rome) do not provide further clues, as only three columns of pavonazzetto are known: a fragment 2.70 m long and 0.60 m in diameter, two small, well-preserved column shafts and connected by their quarry coat (heights 3.38 m and 1.25 m, diameter 0.45 m), and a similar group consisting of four small column shafts joined together in a single marble block (height 2.40 m, diameters 0.30-0.35 m.).

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126 Asgari 1992, 73-80.
127 Waelkens 1987, 114-5.
128 A total of 318 unfinished marble items have been found between 1959 and 1989 at the bottom and along the banks of the Fiumicino canal, the waterway that connects the Tiber River to the hexagonal basin of the Trajanic harbor. They include unfinished marble blocks, column shafts, drums, slabs, bases, capitals, basins, and fragmentary sculptures. (Fant 2001, 168; Pensabene 2002a, 27).
129 Pensabene 1994, 73.
The Most Diagnostic Column Shaft: COL 1

COL 1 is the only column shaft from Punta Scifo A that has been carefully studied since the time of the shipwreck’s discovery, and it is well-known thanks to the 1911 and 1978 publications by Orsi and Pensabene, respectively. Currently on public display at the Nautical Museum of Capo Colonna, the column was broken into three pieces after its recovery; only two of them are extant. When Paolo Orsi published this item in 1911, it was intact and 4.20 m long, indicating that it was subsequently broken and more than a meter of the original shaft is now missing.\footnote{Degrassi 1952, 56.}

The item has a protective collar at one extremity, with a diameter of 0.57 m. My own measurements indicate that the diameter at the first break is 0.49 m and at the second break 0.50 m. It is evident that, once the column was erected in place, the collar removed and the flute-channels dressed, its final diameter at the base would have been similar to the diameter of the rest of the column, taking into account a small difference along the shaft for entasis, or the slight swelling of a column near the middle of its shaft. Therefore, if the column shaft was 4.20 m tall (or 14 ¼ R. ft), with a diameter at the base of ca. 0.50 m (1 ¾ R. ft), the ratio between base and height is 1:8 ⅜ , which is congruent with the proportions of the Corinthian or Ionic orders in Imperial times.\footnote{Wilson Jones 2000, 148, 222-3.} A Latin inscription, carved into the collar, reads as follows:

\begin{verbatim}
LOC II
B II COM I
SEVEROEVICTO
RINO COS OFF
MODIANA C .
IVLI .. A
\end{verbatim}
This has been interpreted as: Loc(o) II / B(racchio) II Com(missura?) I / Severo et Victo / rino Co(n)s(ulibus) Off(icina?) / (Co)modiana C(aesura) / Iuli (G)ayri.132

_Locus_ (Latin for “place, position, location”) indicates the place of extraction within the quarry, that is, the exact marble vein; _Bracchium_ (meaning “arm, branch”) is the sector of the quarry from which this particular item was quarried. _Com(missura?)_, Latin for juncture or intersection, is an abbreviation known only at Punta Scifo A, at the quarries of Docimium,133 and on a block from Caracalla’s Baths in Rome.134 Its meaning is not totally clear. _Severus and Victorinus_ were the consuls in charge of Rome in A.D. 200; _Officina Comodiana_ (literally Commodus’ workshop) is the workshop that received the column shaft from the quarry under the supervision of Commodus; _Iulius Gayrus_, if the reading is correct, is the name of the supervisor responsible for the _caesura_, the process of extracting this piece from the surrounding rock.135

Therefore, the inscription provides the column shaft’s biographical sketch, recording how it was extracted “in the first intersection of the second branch of the second vein, at the time when Severus and Victorinus were consuls. Commodus directed the workshop that received this item from the cutting team of Julius Gayrus.”

132 Transcription and interpretation: Pensabene, 1978a, 115. See Appendix 5 for more specific information regarding quarry inscriptions in Roman Imperial time.
133 Fant 1989b, 66-71.
134 See Bruzza 1870, 193, n. 279; EPICTETVS AVGVS (ti servus) / PROACTOR PRO (curatoris) / (l)OC IIII B SEC COM L .... / (al) BINO ET AEMILAN(o) cos / (caesura?) AVR DEMETRI B(eneficiarii..) / (subcu)RA AVR EPITY(nchani).... / VE CAVRT .... The same inscription has been studied by J. Delaine, and she has read it as: EPICTETUS AUGUS[ti lib(ertus) / PROBATOR PRO[bavit] / LOC(o) IIII B(racchio) SEC(undo) COM(?)[?] / BINO ET AEMILAN(o) [COS] / [caesura] AUR(elii) DEMETRI B[eneficiarii] / [sub cu]RA AUR(elii) EPITY[nchiani] / VEC(tura) AUR(elii) T[hrasonis]
135 For more parallels and extra information regarding Latin quarry-inscriptions, see Bruzza 1870, 106-204; Dodge 1991, 35-6; Ward-Perkins 1992a, 26-30; Pensabene 1998a, 358-362; Pensabene 2001, 44-6; Pensabene 2002a, 18-23.
Paolo Orsi transcribed and published five more inscriptions that are currently unavailable, as the blocks and column shafts on which they were carved are presumed lost.

1) On the lower base of a column shaft (diameter 0.64 m):

\[\text{…… LBSECOM SEVEROEVI}\\ \text{CTORINOCOSOFFCOMODIANA}\\ \text{CAESIVLIGAYRI SVB CVRA}\]

The inscription reads: *(Loco) L B(racchio) Se(cundo) Com(missura?) Severo et Vi / ctorino Co(n)s(ulibus) Off(icina) Comodiana / Caes(ura) Iuli Gayri Sub Cura.* It can be translated as: “The fiftieth column shaft quarried from the second branch of the (first?) intersection (?) in the year of the consuls Severus and Victorinus (A.D. 200) cut by Comodus’ workshop under the supervision of Iulius Gayrus.”

Another on the shaft of the same column:

\[\text{….. GRES …..}\\ \text{… AVGGGER …}\\ \text{…… TORIVLII}\\ \text{GAYRI ………}\\ \text{…….. OPH …}\\ \text{… EEPICTET …}\\
\]

It is difficult to understand the text, as fragmentary as it is. According to Pensabene, it may represent a secondary inscription engraved not at the quarries, but at their

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136 Orsi 1921, 495.
137 After *sub cura* could also come (*procuratoris*). See a similar inscription found in a block of *cipollino* in Rome, in Ward-Perkins 1992a, 27: EX M(etallis) N(ovis) Caesaris N(ostri) R(ationi) D(omus) A(ugusti or augustanae) SUB CUR(a) C(laudi?) CERIALIS PR(ocuratoris) SUBSEQ(uente) SERGIO LONGO 7 (centurionis) LEG(ionis) XXII PRIMIG(eniae) PROB(atore) CRESCENTE LIB(erto) N(umero) VIII.
administrative center in Synnada, based on similarities with other inscriptions found on
two pavonazzetto columns from Rome.\footnote{Pensabene 1978a, 117. For the inscriptions coming from La Marmorata, see Bruzza 1870, 191, n. 258-9. Inscription n. 258: LAELIO / CAESARE N II ET BAL / BINO COS RATIONIS / VRBICAEB SVB CVRIRENAEI / AVG LIB PROC CAESVRA TVLLI / SATVRNINI LEG XXII PRIM (A.D. 137.) Inscription n. 259: AELIO CAESARE N II / ET BALBINO COS RTIONIS / VRBICAEB SVB CVR IREN / AEI AVG LIB PROC CAESVR / TVLLI SATVRNINI LEG / XXII PRIM (A.D. 137.)} If this theory is correct, the letters RE in the
first line could stand for recensitum (Latin for “examined or reviewed”), meaning that the
column had been examined and accepted for trade.\footnote{For parallels regarding the use of R or \( \text{R} \) for recensitum and REP for reprobatum (“rejected”), see Dodge 1991, 35; Pensabene 1998, 359.} Consequently, it would be possible
to complete the text as follows: \( \ldots G(?) \text{Re(censitum) S(ub cura) / Aug(usti) Lib(erti) Procura) / tori(s) Iuli / Gayri Off(icina) \ldots / et Epictet(o Consulibus).\footnote{Pensabene 1978a, 117.} \) In his translation
of this inscription, Pensabene assumed that Orsi had misread or misunderstood some
characters. Pensabene changed Orsi’s “GER” to “LIB” and “OPH” to “OFF” in his
translation. With these changes, this column shaft was “approved for trade under the
supervision of the procurator, an Augustan freedman, produced in the workshop of Iulius
Garyius, in the year of the consuls … and Epictetus.”

J. Clayton Fant proposed a different interpretation of this text, noting that in the
lists of consuls from the Early to the Late Empire the name Epictetus never appears.
Therefore, he proposes to read the last two lines as: Off(icina) [Episcopi et] Epictet(i), in
which case the complete text may be translated as: “approved for trade under the
supervision of the procurator Iulius Garyius, freedman of Augustus, in the workshop of
Episcopus and Epictetus.”\footnote{Fant 1989b, 71.}
2) The following inscription is found on the base of a second column shaft, also currently missing: 142

LOCTBPRI ....... VIC
(to)RINO E SEVERO COS OFF
.......... EPISCO.

This inscription is reconstructed as: Loc(o) T(ertio?) B(racchio) Pri(mo) ... Victorino et Severo Co(n)s(ulibus) Off(icina) ... (sub cura) Episco(pi). In translation: “A column shaft quarried in the third area of the first branch … in the year of the consuls Victorinus and Severus (A.D. 197), in the workshop of … under the supervision of Episcopus.”

3) On the base of a third column shaft, currently missing, is the following: 143

VECYACIN
…… EGNLO
….. PH ..
LOCER
SEC
LAERANO
(ETR)VFINO
.......... 

These last two inscriptions are too incomplete to be interpreted, with the exception of the reference to the consuls Lateranus and Rufinus, which dates the inscription to A.D. 200. Paolo Orsi mentions “a few more inscriptions” on both column shafts and blocks, which he did not attempt to transcribe due to their poor preservation. 144

142 Orsi 1921, 495.
143 Orsi 1921, 495.
144 Orsi 1921, 495.
Marble Blocks

At the time of its discovery, between 1908 and 1915, the Punta Scifo A shipwreck seems to have had on board no fewer than 14 marble blocks (Table 11), from the Proconnesian and Docimian quarries in Asia Minor (modern Turkey). At present, four of these blocks are still on the seafloor, five can be seen in the roundabout of Caputi Square in Croton, and four are located in Corazzo, for a total of 13 blocks. The single missing item, BLC 14, was lost in the waters next to the dock while it was being offloaded in 1915. Presumably, it was never recovered, due to its excessive weight (22 tons according to Paolo Orsi) and size (3.95 x 2.5 x 0.84 m), which almost capsized Forcellini’s pontoon. In 2006, D. Marino reminded me that there is reportedly one large marble block from Punta Scifo A still visible under water among the large boulders of the new dock in Croton’s harbor, and it is possible that more ancient material is buried in this area. A series of dives inside the harbor basin, at the base of the new dock, could resolve this question. Thanks to Orsi’s detailed measurements, it would likely not be difficult to determine whether any of the submerged artifacts are included in Orsi’s catalog.

Table 11 provides a synopsis of the length, width, thickness, and tonnage of each marble block, both in meters and Roman feet. It is noteworthy that the heaviest members are those that were left under water in 1915, and that BLC 13 (20.45 tons) ranks first among them, giving some indication of the trouble the Forcellinis experienced in dealing

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145 Orsi 1921, 493. According to my own calculations, the block, given its dimensions, should have weighed 21.26 metric tons or 23.43 English tons. This suggests that Paolo Orsi and the Engineer Forcellini were using the metric system at the time to calculate weight, and not the Imperial system.

146 Marino 2006, personal communication.
Table 11. Dimensions and tonnage of the marble blocks from Punta Scifo A.

<table>
<thead>
<tr>
<th>Artifact #</th>
<th>Length (m)</th>
<th>Length (R. ft)</th>
<th>Width (m)</th>
<th>Width (R. ft)</th>
<th>Thick. (m)</th>
<th>Thick. (R. ft)</th>
<th>Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLC 1</td>
<td>2.610</td>
<td>8 ¾</td>
<td>1.220</td>
<td>4</td>
<td>0.760</td>
<td>2 ½</td>
<td>6.20</td>
</tr>
<tr>
<td>BLC 2</td>
<td>3.070</td>
<td>10 ¼</td>
<td>1.440</td>
<td>4 ¾</td>
<td>0.265</td>
<td>1</td>
<td>3.00</td>
</tr>
<tr>
<td>BLC 3</td>
<td>1.900</td>
<td>6 ½</td>
<td>1.576</td>
<td>5 ¾</td>
<td>0.660</td>
<td>2 ¼</td>
<td>5.07</td>
</tr>
<tr>
<td>BLC 4</td>
<td>1.68</td>
<td>5 ¾</td>
<td>0.890</td>
<td>3</td>
<td>0.750</td>
<td>2 ½</td>
<td>2.87</td>
</tr>
<tr>
<td>BLC 5</td>
<td>2.10</td>
<td>7</td>
<td>0.74</td>
<td>2 ½</td>
<td>1.00</td>
<td>3 ½</td>
<td>3.98</td>
</tr>
<tr>
<td>BLC 6</td>
<td>3.120</td>
<td>10 ½</td>
<td>1.500</td>
<td>5</td>
<td>0.520</td>
<td>1 ¼</td>
<td>6.24</td>
</tr>
<tr>
<td>BLC 7</td>
<td>1.970</td>
<td>6 ⅜</td>
<td>1.010</td>
<td>3 ½</td>
<td>0.800</td>
<td>2 ¼</td>
<td>4.08</td>
</tr>
<tr>
<td>BLC 8</td>
<td>1.80</td>
<td>6</td>
<td>1.06</td>
<td>3 ½</td>
<td>0.680</td>
<td>2 ½</td>
<td>3.33</td>
</tr>
<tr>
<td>BLC 9</td>
<td>1.05</td>
<td>3 ½</td>
<td>0.90</td>
<td>3</td>
<td>0.40</td>
<td>1 ¼</td>
<td>0.97</td>
</tr>
<tr>
<td>BLC 10</td>
<td>1.650</td>
<td>5 ½</td>
<td>&gt;1.30</td>
<td>&gt;0.30</td>
<td>&gt;0.30</td>
<td>&gt;1.65</td>
<td>&gt;1.65</td>
</tr>
<tr>
<td>BLC 11</td>
<td>2.280</td>
<td>7 ¾</td>
<td>2.450</td>
<td>8 ¾</td>
<td>0.620</td>
<td>2</td>
<td>8.88</td>
</tr>
<tr>
<td>BLC 12</td>
<td>2.300</td>
<td>7 ¾</td>
<td>2.200</td>
<td>7 ½</td>
<td>0.490</td>
<td>1 ¼</td>
<td>6.35</td>
</tr>
<tr>
<td>BLC 13</td>
<td>4.650</td>
<td>15 ¾</td>
<td>1.430</td>
<td>4 ¼</td>
<td>0.620</td>
<td>2</td>
<td>10.57</td>
</tr>
<tr>
<td>BLC 14</td>
<td>3.80</td>
<td>12 ¼</td>
<td>2.50</td>
<td>8 ½</td>
<td>0.84</td>
<td>2 ¼</td>
<td>20.45</td>
</tr>
<tr>
<td><strong>Weight (total)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>&gt;83.64</strong></td>
</tr>
</tbody>
</table>

with its gigantic size. For comparison, it should be noted that there are only three cargoes in the entire Mediterranean known to contain a heavier marble block: Marzamemi 1 (third century A.D., 40 tons), Isola delle Correnti (third century A.D., 28.5 tons), and Porto Novo (early first century A.D., 23.3 tons).\footnote{Marzamemi 1: see Kapitän 1971, 298-303; Isola delle Correnti: Kapitän 1971, 296-8; Porto Novo: Bernard, Bessac, Mardikian and Feugère 1996, 53-81.}

The conversion to Roman feet does not provide particularly useful information: the lengths fall between 5 ½ and 15 ¾ R. ft, the widths between 3 ½ and 8 ½ R. ft, and the thicknesses between 1 and 2 ¼ R. ft. It does not look like the masons followed a set of fixed, gradually increasing proportions as with the column shafts. The blocks were probably quarried in the most efficient way, following the natural veins in order to avoid waste and possible imperfections in the stone. It is worth noting that the blocks in
pavonazzetto have squared or rectangular “steps” cut into their surface, while those from Proconnesus are uniformly more rectangular.

Parallels from the Quarries (Proconnesus, Docimium), and Rome (Fiumicino)

The quarries of Proconnesus have revealed only 13, and not very large, marble blocks, a low number considering the widespread use of this particular type of stone throughout antiquity. Probably most of the evidence for Greek and Roman times does not exist anymore, considering that the quarries stayed open into the Byzantine period and are active even today.\textsuperscript{148} The lengths of these surviving quarried blocks range between 0.75 and 1.85 m, their widths between 0.47 and 0.87 m, and thicknesses between 0.47 and 0.87 m.\textsuperscript{149} Similar to BLC 4, BLC 5, and BLC 7, the items still at the quarry do not have a stepped surface. According to Asgari and Pensabene this is evidence that the marble blocks quarried there, the least expensive in Diocletian’s \textit{Edict on Maximum Prices}, were going to be used as building blocks without undergoing further modifications in shape, and were exported ready for use.\textsuperscript{150} Pensabene notes that in all the shipwrecks in which Proconnesian marble blocks are found, they are of large size and regular shape.\textsuperscript{151} This is indeed true for the three known cargoes of Proconnesian blocks at Capo Granitola, Isola delle Correnti, and, mixed with green porphyry from Larissa, Marzamemi 2.\textsuperscript{152} The Kızılburun shipwreck, however, represents the exception, since it

\textsuperscript{148} Asgari 1978, 469.
\textsuperscript{149} Asgari 1990, 110.
\textsuperscript{150} Asgari 1990, 110; Pensabene 2002a, 29.
\textsuperscript{151} Pensabene 2002a, 29.
had on board also a mortarium, two louteria, and an uninscribed grave stone made of Proconnesian marble.\textsuperscript{153}

While the number of blocks still visible in the quarries of Docimium is unknown and has yet to be cataloged,\textsuperscript{154} 20 blocks of pavonazzetto from the Fiumicino canal are quite similar, both in shape and dimensions, to those from the Punta Scifo A shipwreck.\textsuperscript{155} The first feature shared by the pavonazzetto blocks from Fiumicino and Punta Scifo A is their stepped surface. Because the Docimium quarries were located approximately 400 km from the sea, and transport over land affected considerably the final cost of the exports, it was necessary to reduce the overall weight as much as possible. It is likely, therefore, that the Docimian blocks were sawn into slabs of revetment for floors and walls, reducing the weight as much as possible during transportation.\textsuperscript{156}

An unspecified number of “little lead plates with handles” measuring 165 x 42 mm were also found in “almost all of the marble blocks” recovered from Punta Scifo A in 1915.\textsuperscript{157} These were drawn on a separate sheets of paper filed with the report of June 21, 1915, but were not visible in 2005-2006.\textsuperscript{158} If it were possible to locate the 14 tables that accompanied Claudio Riva’s report, of which only the text is available in Appendix 2, much more information could be obtained regarding the discoveries that took place in the early 20\textsuperscript{th} century.

\textsuperscript{154} Waelkens 1987, 114-5.
\textsuperscript{155} Fant 2001, 168; Pensabene 2002a, 27.
\textsuperscript{156} Baccini Leotardi 1979, 36-7; Pensabene 1994, 19-22; Pensabene 2002a, 27-9.
\textsuperscript{157} Orsi 1921, 494.
\textsuperscript{158} Original report, June 21, 1915. (See Appendix 2 for the Italian text and English translation).
Marble Basins (Labra)

The second group of items recovered from the Punta Scifo A shipwreck consists of 13 marble basins (Latin labra), of which only seven were visible in 2005-2006. Fortunately, the dimensions of four of the six missing labra are known.

Labrum (plural labra) is the shortened form of the Latin word lavabrum or lavacrum, coming from the verb lavo meaning “to wash.” Usually of rounded shape, sometimes with handles on the sides and marble pedestals, labra could be made of a variety of materials: marble, porphyry, terracotta, or metal. They were used as decorative fountains, vats for personal cleaning at home, adornments of upper-class villas or for ritual ablutions in sacred places.

According to Annarena Ambrogi, it was at the time of Augustus that decorative fountains became fashionable in the gardens of Roman houses. In Pompeii and Herculaneum, for instance, after the Serinus aqueduct reached the cities and a new system of lead pipes was completed, fountains and marble basins began to appear with frequency. The House of the Vettii in Pompeii has in its peristyle four labra, the largest number ever found in a Roman private building. However, it is known from historical accounts that many more labra were in use in public buildings of the Late Empire: the Byzantine historian Olympiodorus saw in the thermae of Diocletian 3,200 small marble basins, and many more were present in Caracalla’s public baths.

159 Ambrogi 2005, 49.
Labra could also be used in public squares, streets, crossroads, close to sanctuaries and in the forum to provide public access to drinking water from decorative fountains. Water reached the labrum through a small lead pipe in the pedestal, which terminated in a small opening at the center of the basin, allowing the water to flow gracefully over the rounded, splayed rim. On wall paintings in Pompeii and Herculaneum, two different types of labra are seen: one with a gently outward curving rim (Fig. 32a), and the other with flat rims curving slightly inward providing a surface for birds to rest on (Fig. 32b). The marble basins from Punta Scifo A are reminiscent of the first type.

Fig. 32. (a) To the left a labrum with rounded rim, two side-handles, low foot, and squared support from the House of Lucretius Fronto in Pompeii. (Detail after Cain 1985, Taf. 1,2) (b) To the right a different type of labrum, from the House of Venus on the Shell in Pompeii. Its foot is much taller, slimmer, and decorated with a vegetal motif. The rim is flat and slightly turned inward, in order to allow birds to stand and drink. (From Panetta 2004, 310).

Table 12 shows the dimensions, both in meters and Roman feet, of all the extant *labra* from Punta Scifo A in Croton and Tarentum. Wherever possible, the original dimensions of an incomplete or broken basin have been reconstructed on the basis of comparanda. It is likely, for instance, that the external diameters of LAB 5 and LAB 6, now measuring 1.50 m, were originally closer to 2.10 m or 7 R. ft wide, considering that their feet, preserved height, and body curvature are similar to those of LAB 1. Pensabene mentions four basins with a diameter of 3 ½ R. ft, and although their present location is unknown, it is possible to conclude that the original assemblage was composed of at least 13 basins, of which five were small (external diameter of 3 ½ R. ft), five large (7 and 7 ½ R. ft), and one of eight Roman feet in diameter. Two additional *labra*, which Paolo Orsi saw in the early 20th century, could not be located in Croton in 2005-2006; their dimensions therefore remain unknown. It is plausible, however, that the ship A wrecked at Punta Scifo was carrying two main groups of *labra*: those 3 ½ R. ft wide, and others twice as large. A large, isolated basin of 8 R. ft was on board as well.

Table 12. Diameter (at the rim and base) and height of the marble basins cataloged in 2005-2006, in meters and Roman feet. Six extra basins are currently missing.

<table>
<thead>
<tr>
<th>Artifact #</th>
<th>Diam. Ext. (m)</th>
<th>Diam. Ext. (R. ft)</th>
<th>Diam. Base (m)</th>
<th>Diam. Base (R. ft)</th>
<th>Height (m)</th>
<th>Height (R. ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAB 1</td>
<td>2.10</td>
<td>7</td>
<td>0.55</td>
<td>1 ¼</td>
<td>0.90</td>
<td>3</td>
</tr>
<tr>
<td>LAB 2</td>
<td>2.25</td>
<td>7 ½</td>
<td>0.60</td>
<td>2</td>
<td>1.05</td>
<td>3 ½</td>
</tr>
<tr>
<td>LAB 3</td>
<td>2.36</td>
<td>8</td>
<td>0.58</td>
<td>2</td>
<td>1.04</td>
<td>3 ½</td>
</tr>
<tr>
<td>LAB 4</td>
<td>1.02</td>
<td>3 ½</td>
<td>0.26</td>
<td>1</td>
<td>0.49</td>
<td>1 ¼</td>
</tr>
<tr>
<td>LAB 5</td>
<td>&gt; 1.50 (2.10?)</td>
<td>7 (?)</td>
<td>0.45</td>
<td>1 ½</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>LAB 6</td>
<td>&gt; 1.50 (2.10?)</td>
<td>7 (?)</td>
<td>0.47</td>
<td>1 ½</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>LAB 7</td>
<td>&gt; 1.70 (2.25?)</td>
<td>7 ½ (?)</td>
<td>0.67</td>
<td>2 ¼</td>
<td>&gt; 0.78 (0.90?)</td>
<td>3</td>
</tr>
</tbody>
</table>
The Most Diagnostic Marble Basins: LAB 2, LAB 3, and LAB 4

Since a complete description of all basins appears in the artifact catalog at the end of this study, only the three best-preserved and most diagnostic labra will be discussed here. LAB 2 and LAB 3, currently located on either side of the entrance to Croton’s Archaeological Museum, were raised in 1909 and are described in P. Orsi’s 1911 article. \(^{162}\)

Their dimensions are similar (7 ½ and 8 R. ft in diameter, 3 ½ R. ft high), both are made of pavonazzetto marble, and have eight rectangular bosses beneath a flat, projecting rim. The bosses were probably left in place to reinforce the rim during transport and also to facilitate loading and unloading. Ultimately, these bosses would have been removed or worked into decorative shapes, as in a complete example from Delos (Fig. 33).

A close examination of LAB 2 and LAB 3 reveals that their rims were destined to be rounded outward as was done for the smaller LAB 4. A small section of each rim had been partially rounded off at the quarry, probably to provide a guide for the workshop to follow upon delivery (Fig. 34). LAB 4 is the smallest labrum among those found at Punta Scifo A, only 3 ½ R. ft in diameter and 1 ¾ R. ft tall. It is also the most-polished and complete in the group. The rim is finished, with only six bosses preserved beneath it: two of the original eight are missing due to breakage of part of the basin’s bowl. Perhaps this small labrum was intended to serve as a template for finishing the remaining items. The same may be true for those pedestals with lions’ paws; only one of these is completely finished (HPL 3), while the others are roughly-worked.

\(^{162}\) Orsi 1911, 118-24.
Fig. 33. A Roman *labrum* with a richly decorated rim, body, and supports. From Delos, unspecified date. (Drawing after Deonna 1938, 54).

Fig. 34. LAB 3 with part of the inner edge of the rim already rounded. (Photo: D. Bartoli).
Pedestals Decorated with Lions’ Paws

The 11 marble pedestals decorated with lions’ paws are the most intriguing, and at the same time the most difficult objects to contextualize from the Punta Scifo A shipwreck. Although furniture with animal legs was widespread not only in the Roman world but throughout antiquity in general, it has been nearly impossible to find exact parallels for the footed stands from Punta Scifo. It seems these are currently the only known examples of marble pedestals decorated with lions’ paws at their extremities. They can be divided into three separate sets, based on difference in shape, diameter, height, and probably, final function. In the Catalog they are referred to as High, Medium, and Low Pedestals with Lions’ paws, shortened as HPL, MPL, LPL, and followed by the catalog number.

While all are made of pavonazzetto marble, and all are decorated with lions’ paws at their corners, the stages of completion are different. Most examples have a thick protective ring where the lions’ paws meet the base, probably there to protect the corners during transport (HPL 1, HPL 2, MPL 1, MPL 2, LPL 1, LPL 2). On HPL 3, however, the protective ring has been completely removed, the corners squared and polished, and the lions’ toes finished. It is possible to see the nails on all four paws.

The surfaces of all the upper discs are rough. The lack of polishing, and the presence of inscriptions, suggest that their surfaces were not meant to be visible as they were, but were to be polished when finished in a workshop. Three of these discs bear Greek letters or short inscriptions: “ΕΛ” (HPL 1), “ΣΑΤΟΠ” (LPL 1), “H” (LPL 2). It is

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163 Even Patrizio Pensabene (Università La Sapienza, Rome) and Fabrizio Slavazzi (Università Statale, Milan), two scholars actively involved in the study of marble in the Roman world, were not aware of any close parallels, when I contacted them personally in 2007.
possible that “ΕΛ” represents the Greek number 35, H the number 8, and “ΣΑΤΟΡ” is the abbreviation for the name Sator[ninos], one of the workers or supervisors at the quarry. At the time of C. Moss’ 1988 study of 800 marble furniture pieces found in Italy, only four carried Greek lettering.\textsuperscript{164} If, before the discovery of Punta Scifo A, the evidence for imports of marble furniture from the East was scanty, this shipwreck testifies that consignments of finished and almost finished artifacts were shipped to Italy.

\textit{Dimensions}

In Table 13 are compared, both in meters and Roman feet, the measurements of each pedestal, the diameter of the upper disc, height, width, and length at the base. Looking at the artifacts’ dimensions in Roman feet alone, one notes that the increase in height is inversely related to a decrease in diameter, in increments of one quarter of a Roman foot (Table 14). As with the column shafts, it is clear that these items too were quarried using a well-defined system of proportions.

Even if the pedestals are stylistically similar, there is a marked difference in size, height, and diameter. The highest pedestals are the most slender, with upper diameters between 0.40-0.50 m (1 \(\frac{1}{4}\) - 1 \(\frac{3}{4}\) R. ft); the pedestals of medium height have diameters of circa 0.60 m (2 R. ft), and the lowest have basins that are 0.68 m in diameter (2 \(\frac{1}{4}\) R. ft). These are large pedestals, when compared with similar artifacts of Roman date. F. Slavazzi, for instance, studied 38 Roman cylindrical supports dating from the first century B.C. and first century A.D from northern Italy. Slavazzi noticed that their

\textsuperscript{164} Moss 1988, 197-8.
Table 13. Dimensions of the marble pedestals from Punta Scifo A, in meters and Roman feet.

<table>
<thead>
<tr>
<th>Artifact #</th>
<th>Diam. (m)</th>
<th>Diam. (R. ft)</th>
<th>Height (m)</th>
<th>Height (R. ft)</th>
<th>Width (m)</th>
<th>Width (R. ft)</th>
<th>Length (m)</th>
<th>Length (R. ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPL 1</td>
<td>0.410</td>
<td>1 ½</td>
<td>0.590</td>
<td>2</td>
<td>0.664</td>
<td>2 ¼</td>
<td>0.664</td>
<td>2 ¼</td>
</tr>
<tr>
<td>HPL 2</td>
<td>0.490</td>
<td>1 ¼</td>
<td>0.510</td>
<td>1 ¼</td>
<td>0.765</td>
<td>2 ½</td>
<td>0.765</td>
<td>2 ½</td>
</tr>
<tr>
<td>HPL 3</td>
<td>0.445</td>
<td>1 ½</td>
<td>0.600</td>
<td>2</td>
<td>0.766</td>
<td>2 ½</td>
<td>0.766</td>
<td>2 ½</td>
</tr>
<tr>
<td>HPL 4</td>
<td>0.400</td>
<td>1 ¼</td>
<td>0.650</td>
<td>2 ¼</td>
<td>0.600</td>
<td>2</td>
<td>0.590</td>
<td>2</td>
</tr>
<tr>
<td>HPL 5</td>
<td>N/A</td>
<td>N/A</td>
<td>0.555</td>
<td>2</td>
<td>0.600</td>
<td>2</td>
<td>0.670</td>
<td>2 ¼</td>
</tr>
<tr>
<td>HPL 6</td>
<td>N/A</td>
<td>N/A</td>
<td>0.550</td>
<td>1 ¼</td>
<td>0.510</td>
<td>1 ¼</td>
<td>0.450</td>
<td>1 ½</td>
</tr>
<tr>
<td>MPL 1</td>
<td>0.610</td>
<td>2</td>
<td>0.395</td>
<td>1 ¼</td>
<td>0.950</td>
<td>3 ¼</td>
<td>0.950</td>
<td>3 ¼</td>
</tr>
<tr>
<td>MPL 2</td>
<td>0.590</td>
<td>2</td>
<td>0.418</td>
<td>1 ½</td>
<td>0.900</td>
<td>3</td>
<td>0.900</td>
<td>3</td>
</tr>
<tr>
<td>MPL 3</td>
<td>N/A</td>
<td>N/A</td>
<td>0.420</td>
<td>1 ½</td>
<td>0.980</td>
<td>3 ¼</td>
<td>0.950</td>
<td>3 ¼</td>
</tr>
<tr>
<td>LPL 1</td>
<td>0.682</td>
<td>2 ¼</td>
<td>0.380</td>
<td>1 ¼</td>
<td>1.180</td>
<td>4</td>
<td>1.170</td>
<td>4</td>
</tr>
<tr>
<td>LPL 2</td>
<td>0.680</td>
<td>2 ¼</td>
<td>0.380</td>
<td>1 ¼</td>
<td>1.150</td>
<td>4</td>
<td>1.150</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 14. Dimensions of the pedestals, arranged to highlight the relation between heights and diameters.

<table>
<thead>
<tr>
<th>Artifact #</th>
<th>Diam. (R. ft)</th>
<th>Height (R. ft)</th>
<th>Width (R. ft)</th>
<th>Length (R. ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPL 4</td>
<td>1 ¼</td>
<td>2 ¼</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>HPL 1</td>
<td>1 ½</td>
<td>2</td>
<td>2 ¼</td>
<td>2 ¼</td>
</tr>
<tr>
<td>HPL 3</td>
<td>1 ½</td>
<td>2</td>
<td>2 ½</td>
<td>2 ½</td>
</tr>
<tr>
<td>HPL 2</td>
<td>1 ¼</td>
<td>1 ¼</td>
<td>2 ½</td>
<td>2 ½</td>
</tr>
<tr>
<td>HPL 5</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HPL 6</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>MPL 2</td>
<td>2</td>
<td>1 ½</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MPL 1</td>
<td>2</td>
<td>1 ¼</td>
<td>3 ¼</td>
<td>3 ¼</td>
</tr>
<tr>
<td>MPL 3</td>
<td>N/A</td>
<td>N/A</td>
<td>3 ¼</td>
<td>3 ¼</td>
</tr>
<tr>
<td>LPL 2</td>
<td>2 ¼</td>
<td>1 ¼</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>LPL 1</td>
<td>2 ¼</td>
<td>1 ¼</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
upper diameters never exceed 0.28 m, for a height of 0.19-0.27 m. Their widths would have supported, in theory, even small and medium-sized column shafts, based on Asgari’s classification (see Table 10). It is likely, but not certain, that these stands served as supports for the basins coming from the same shipwreck. While Table 15 summarizes the matching elements, Table 16 itemizes the stands that do not match any of the surviving basins. It needs to be stressed that, however, only 7 out of 13 basins and 11 out of 15 pedestals are preserved; so it is likely that some matching elements are missing.

Table 15. Possible reconstruction of labra and their matching paw-footed pedestals, based on their diameters.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LAB 1</td>
<td>0.55</td>
<td>1 ¾</td>
<td>MPL 2</td>
<td>0.590</td>
<td>2</td>
</tr>
<tr>
<td>LAB 2</td>
<td>0.60</td>
<td>2</td>
<td>MPL 1</td>
<td>0.610</td>
<td>2</td>
</tr>
<tr>
<td>LAB 3</td>
<td>0.58</td>
<td>2</td>
<td>MPL 2</td>
<td>0.590</td>
<td>2</td>
</tr>
<tr>
<td>LAB 4</td>
<td>0.26</td>
<td>1</td>
<td>None</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td>LAB 5</td>
<td>0.45</td>
<td>1 ½</td>
<td>HPL 3</td>
<td>0.445</td>
<td>1 ½</td>
</tr>
<tr>
<td>LAB 6</td>
<td>0.47</td>
<td>1 ½</td>
<td>HPL 2</td>
<td>0.490</td>
<td>1 ¾</td>
</tr>
<tr>
<td>LAB 7</td>
<td>0.67</td>
<td>2 1/4</td>
<td>LPL 1-2</td>
<td>0.68</td>
<td>2 1/4</td>
</tr>
</tbody>
</table>

Table 16. Pedestals that do not match any labrum.

<table>
<thead>
<tr>
<th>Unmatched Pedestal</th>
<th>Diam. (m)</th>
<th>Diam. (R. ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPL 1</td>
<td>0.410</td>
<td>1 ½</td>
</tr>
<tr>
<td>HPL 4</td>
<td>0.400</td>
<td>1 ¼</td>
</tr>
<tr>
<td>HPL 5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HPL 6</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>MPL 3</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The presence of lions’ paws on the pedestals found at Punta Scifo A raises another interesting parallel. The most numerous and best-preserved examples come from richly-decorated villas in Pompeii and Herculaneum. The best comparanda are used in the decoration of interior spaces. As Stephan Mols points out in his study of the wooden furniture from Herculaneum, objects of daily life decorated with lions’ and dogs’ paws are extremely common, and besides them “we encounter the legs of panthers, cattle, horses, deer and antelope. They could be in marble or bronze, as well as in wood. We find animal legs, especially lion legs, in other types of furniture and in everyday objects.”

In Tutankhamun’s Egypt (1336-1327 B.C.) lions’ paws were used to decorate wooden furniture, and to the reign of Ashurnasirpal (884-859 B.C.) is dated a bronze throne decorated with lion’s paws (Fig. 35). In the Archaic and Classical periods (sixth-fifth centuries B.C.) lions’ paws were used on objects such as small tables (Fig. 36), and thrones (Fig. 37). In Hellenistic times lions’ paws were a ubiquitous decoration for marble theater seats, as at Miletus, Priene, Oropos, and Athens. A marble tripod, also from Miletus, is decorated in the same way.

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166 Mols 1999, 45-6.
167 Reeves 1990, 184-6.
168 Litchfield 1899, 3.
170 Richter 1966, figs. 139-51.
171 Knackfuss 1908, table 19.
Fig. 35. Bronze throne and footstool from Assyria, ca. 888 B.C. (Image from Litchfield 1899, 3).

Fig. 36. Table decorated with lions’ paws, Archaic Greek Age. (Image from Litchfield 1899, 9).
A bronze cylindrical casket made at Palestrina in Latium about 300 B.C., the so-called “Ficoroni cista,” made to contain a lady’s toiletries, is one of the earliest examples of lions’ paws in association with a finely-executed object to be used in everyday life. From Pompeii and Herculaneum the number of items decorated with lions’ paws is remarkable and varied: a statuette of the Goddess Fortuna on a globe (Fig. 38), two candelabra one with four oil lamps (Fig. 38), and the other which represents Eros holding in his hand an oil lamp in the shape of a theatrical mask (Fig. 39), a tripod (Fig. 39), a hydria (Fig. 40), and even a small portable stove (Fig. 41). Pedestals, furthermore, were not the only artifacts from the Punta Scifo A shipwreck to feature lions’ paws: the bronze stand for an oil lamp (MOB 8) has three feet decorated with lions’ paws.

172 Burn 1991, 172, fig. 146.
Fig. 38. Statuette of the goddess Fortuna standing on a globe, from Herculaneum, and a candelabrum from Pompeii. Notice the lions’ paws used to decorate the pedestals’ feet. (Images from Monaco 1884, figs. 94 and 115).

Fig. 39. Candelabrum with Eros holding an oil-lamp, from Herculaneum. Tripod from Pompeii. (Images from Monaco 1884, figs. 116 and 121d).
Fig. 40. Hydria in bronze, from Herculaneum. (Image from Monaco 1884, fig. 143).

Fig. 41. Portable stove in bronze, from Pompeii. (From Monaco 1884, fig. 136b).
These items from Punta Scifo A represent, currently, the only archaeological evidence of paw-footed marble bases that may have been destined to comprise part of the furnishings of a Roman building. The four “anchoring pegs,” small rectangular protrusions usually located under the four corners to fix the object in the soil, are missing. This evidence further strengthens the likelihood that these basins were not made to be placed outdoors in the open ground.

Statue Pedestals

The last class of large marble artifacts to be analyzed are the statue pedestals, all of which appear to be Proconnesian in origin. Originally six in number at the time of discovery, only five are extant in Croton and Corazzo. Table 17 provides the dimensions of each pedestal, including the heights of STP 6 as recorded by P. Orsi. Its width and length are tentatively reconstructed based on a similarity in height with STP 1.

Table 17. Dimensions, in meters and Roman feet, of the statue pedestals from the Punta Scifo A wreck site. Figures in italics are tentative.

<table>
<thead>
<tr>
<th>Statue Pedestal #</th>
<th>Height (m)</th>
<th>Height (R.ft)</th>
<th>Width base (m)</th>
<th>Width base (R. ft)</th>
<th>Length base (m)</th>
<th>Length base (R. ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STP 1</td>
<td>1.550</td>
<td>5 ¼</td>
<td>0.775</td>
<td>2 ½</td>
<td>0.860</td>
<td>3</td>
</tr>
<tr>
<td>STP 2</td>
<td>1.300</td>
<td>4 ½</td>
<td>0.821</td>
<td>2 ¼</td>
<td>0.735</td>
<td>2 ½</td>
</tr>
<tr>
<td>STP 3</td>
<td>1.420</td>
<td>4 ¾</td>
<td>0.740</td>
<td>2 ½</td>
<td>0.860</td>
<td>3</td>
</tr>
<tr>
<td>STP 4</td>
<td>1.460</td>
<td>5</td>
<td>0.820</td>
<td>2 ¼</td>
<td>0.870</td>
<td>3</td>
</tr>
<tr>
<td>STP 5</td>
<td>1.30</td>
<td>4 ½</td>
<td>0.68</td>
<td>2 ¼</td>
<td>0.73</td>
<td>2 ½</td>
</tr>
<tr>
<td>STP 6</td>
<td>1.55</td>
<td>5 ¼</td>
<td>0.775</td>
<td>2 ½</td>
<td>0.860</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 17 (continued).

<table>
<thead>
<tr>
<th>Statue Pedestal #</th>
<th>Width Body (m)</th>
<th>Width Body (R. ft)</th>
<th>Length Body (m)</th>
<th>Length Body (R. ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STP 1</td>
<td>0.670</td>
<td>2 ¼</td>
<td>0.630</td>
<td>2 ¼</td>
</tr>
<tr>
<td>STP 2</td>
<td>0.655</td>
<td>2 ¼</td>
<td>0.625</td>
<td>2</td>
</tr>
<tr>
<td>STP 3</td>
<td>0.700</td>
<td>2 ¼</td>
<td>0.580</td>
<td>2</td>
</tr>
<tr>
<td>STP 4</td>
<td>0.630</td>
<td>2 ¼</td>
<td>0.650</td>
<td>2 ¼</td>
</tr>
<tr>
<td>STP 5</td>
<td>0.58</td>
<td>2</td>
<td>0.59</td>
<td>2</td>
</tr>
<tr>
<td>STP 6</td>
<td>0.670</td>
<td>2 ¼</td>
<td>0.630</td>
<td>2 ¼</td>
</tr>
</tbody>
</table>

There can be little doubt that these items were produced in the same workshop, by the same craftsmen, using the same sculptural techniques. The overall dimensions do not vary much from one item to another and the surface is always roughly-finished with a pointed chisel (see the details of STP 2 in the Catalog). Another feature of all five items is the horizontal, smooth, and slightly projecting band clearly visible on STP 2, always present at one extremity, and never at the other.

Examples from the town of Baiae in the Bay of Naples, such as the 11 pedestals that supported statues of the emperors, gods, and *augustales* or priests of the Imperial cult (Fig. 42), provide useful parallels for the material from Punta Scifo A. Inscriptions carved on these pedestals suggest that some date to the time of Nerva and Trajan (A.D. 96-117), and others to the age of Marcus Aurelius and Lucius Verus (A.D. 161-169).\(^{174}\)

The base of the pedestal in Fig. 42a ends in a smooth band from which project a series of mouldings. The top of the band is decorated with a cornice that protrudes gently outward. This same decoration is seen on the artifacts from Baiae, suggesting that the

\(^{174}\) Miniero 2003, 53.
bands that appear at Punta Scifo were intentionally carved to designate the beginning of the bases’ decoration and to demarcate an area for the inscription.

One of the four sides of the pedestal shown in Fig. 42b was left unfinished, suggesting that it was meant to be placed against a wall. Figure 42b shows that the working of the stone closely resembles the technique used at Punta Scifo. The marble’s surface is rough-hewn with a pointed chisel, and some deep cavities still bearing the impressions of “footsteps” prove unquestionably that the pedestal functioned as the base for a piece of statuary (Fig. 43).

![Fig. 42. (a) Statue pedestal in the courtroom of the medieval castle of Baiae. The arrow shows the moulding of the pedestal. (b) Unfinished side of the pedestal. (Photo: D. Bartoli).]
Additional parallels can be found in Olaf Dräger’s *Religionem Significare*, a thoughtful review of Roman marble altars and bases. Dräger’s group I D (“Arae with squared section”) includes specimens from Rome, Aquileia, Capri, London, and Newby Hall; their shape is identical to that of the items from Baiae and Punta Scifo.\textsuperscript{175} Three other statue pedestals of Proconnesian marble were found on board the Capo Granitola shipwreck (third-fifth century A.D.).\textsuperscript{176}

A picture of the Temple of Hadrian at Ephesus published in Ward-Perkins’ 1977 *Roman Architecture* shows the temple façade composed of four Corinthian columns sustaining an architrave and a central arch. Each column has a statue pedestal placed just in front (Fig. 44).

\textsuperscript{175} Dräger 1994, 37-8, table 1.3.
\textsuperscript{176} Purpura 1996, 328-9.
Previously (pp. 97-8) I proposed that the 16 columns from Punta Scifo A may have been destined to create a two-level façade; perhaps the six statue pedestals from the same wreck were meant to adorn a building in a way similar to that seen at Ephesus, with a pedestal placed in front of each column at ground level. This remains a hypothesis, but one that supports the interpretation that the cargo of Punta Scifo A was designed with a unique project in mind and that all architectural elements were destined for the same venue. The marble artifacts represent a well-defined set of architectural elements meant to adorn a building of Severan age, when interest in the art and materials of Asia Minor became a passion of the ruling class.
Alongside the larger architectural elements, the Punta Scifo A ship was also carrying a few small items: four marble slabs of which only one survived intact (SLB 1), a statuette of Eros and Psyche embracing each other (STA 1), at least six tiny tablets of marble and slate (MOB 1), and a mortar made of granite (MOB 2).

SLB 1, a thin (0.07 m) but large (2.10 x 1.05 m) marble slab was discovered during Orsi’s investigations along with a few more fragmentary slabs, the number of which remains unknown.177 The other artifacts were discovered later: the statuette in 1968, when some local fishermen raised it in the bay of Punta Scifo,178 and the tablets and mortar in 1983 during the *Aquarius* excavation.179 Armando Lucifero in his 1976 translation of François Lenormant’s *La Grande Grèce*, recounts how, after buying the little sculpture from local fishermen, he donated it to the museum of Croton.180 This is the only piece of evidence indicating that between 1915 and 1983 there was at least one additional find, and one cannot help but wonder if more items disappeared in the years before the *Soprintendenza ai Beni Archeologici della Calabria* decided to excavate the site.

There is a discrepancy between P. Pensabene and C. Moss regarding the ultimate nature of the Eros and Psyche group. While Pensabene considers it an unfinished sculpture in *pavonazzetto* typical of the Docimian workshops, which were skilled in producing small votive and decorative sculptures for export, Moss sees the group as a

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177 P. Orsi describes, at p. 494 of his 1921 article, “an intact marble table of 2.10 x 1.05 x 0.07 m and fragments of several others” without specifying their exact number.

178 Moss 1988, 386.

179 Pensabene 2002a, 37.

180 Lucifero in Lenormant 1976, 223, n. 29.
trapezophoros, a vertical support for a marble table.\textsuperscript{181} Pensabene thinks that “the plinth evidently lacks the final finishing which would have rendered the mouldings extremely fragile during the transport of the sculpture. For the same reason, work on the hair and the himation of Psyche is not deep and the legs of Eros have been left very thick: otherwise they would have broken easily.”\textsuperscript{182} Moss does not agree: “the figures are rather superficially executed, and their shallow modeling creates a distinctly soft effect. Despite this, the surfaces are well-finished, with portions of the Eros and the base tending toward the polished.”\textsuperscript{183} According to Moss, the real explanation for the cursory treatment of the surface has to be sought in the function of the object itself, which, being a supporting pillar of a trapezophoros, did not have to be highly finished.\textsuperscript{184}

Having examined the statuette, I am inclined to support Pensabene’s interpretation. I did not notice, indeed, any trace of the little squared support for a table top that should appear above and between the figures’ heads, as seen in a trapezophoros representing Attis presently in Reggio Calabria,\textsuperscript{185} or on four other trapezophoroi from Ostia and Pompeii.\textsuperscript{186} The total height, of 1.30 m, makes the Eros and Psyche group too tall to support a table: the average height of the other trapezophoroi cited here is 0.75-0.80 m. Therefore, the statuette from Punta Scifo A should likely be considered a small, unfinished, ornamental sculpture: the four rectangular feet placed under the base were used to secure the artifact into the ground, suggesting an outside destination, such as

\textsuperscript{181} Pensabene 1978b, 233; Pensabene 2002a, 37; Moss 1988, 386-7.
\textsuperscript{182} Pensabene 1978b, 233.
\textsuperscript{183} Moss 1988, 387.
\textsuperscript{184} Moss 1988, 387.
\textsuperscript{185} Andronico in De Nuccio, Ungaro 2002, 373, n. 74;
\textsuperscript{186} Mastroroberto 2002a, 373-5, n. 75; Valeri in De Nuccio, Ungaro 2002, 375, n. 76; Mastroroberto 2002b, 375-6, n. 77; Borghini 2001, 245, fig. 92b.
a garden.\textsuperscript{187} Comparison with a similar group dating to the second century A.D., found in the *Domus of Valerii* in Rome and now located at the *Uffizi* Museum in Florence, shows how the finished statuette might have looked (Fig. 45a).\textsuperscript{188}

The myth of Eros and Psyche, seen as a philosophical symbol of the union of the human soul with divine love, became extremely popular in the Roman world after Apuleius wrote his *Metamorphoses* in the middle of the second century A.D., and was a popular subject for sarcophagi produced from the second to fourth centuries A.D.\textsuperscript{189} The only statuette with Eros and Psyche dated to the third century A.D. I have been able to find comes from Ostia. It is set on a tall pedestal which shows how the sculpture from Punta Scifo might have functioned in its final context.\textsuperscript{190} There are other, earlier parallels, like a sarcophagus with Cupids dated to ca. A.D. 160-170 and currently located at the Richmond Museum of Fine Arts,\textsuperscript{191} an Eros sleeping on a torch, also from the middle of the second century A.D., on exhibit at the Museo Nazionale Romano (Fig. 45b), three statuettes representing Cupids from Florence’s Palazzo Pitti,\textsuperscript{192} and two more in Leiden\textsuperscript{193} and Thessaloniki.\textsuperscript{194}

Four tablets made of marble and slate (MOB 1), are so-called *coticulae*, or “touchstones” supposedly used to test coins and precious metals. According to Carlo Beltrame, however, it is more likely that they were used as palettes to cut, grind, and mix the ingredients of ointments, drugs, and eyewash.\textsuperscript{195}

\textsuperscript{187} Slavazzi 2001, 93.
\textsuperscript{188} Brenk 1999, 70, fig. 1.
\textsuperscript{189} Guerrieri 2007, 56-7.
\textsuperscript{190} Boëthius and Ward-Perkins 1970, pl. 176; Calza 1947, 9,28.
\textsuperscript{191} Moss 1988, 205; Waelkens 1982, 53-4, table 15.
\textsuperscript{192} Saladino in Capecchi, Baldini, and Agostiniani 2003, 520-1, figs. 46-8
\textsuperscript{193} Herrmann 1992, 100, fig. 5.
\textsuperscript{194} Herrmann 1995, 78, fig. 14.
\textsuperscript{195} Similar tools are found in surgeons’ graves. (Beltrame 2002, 41).
Not much can be said of the remaining items. A granite mortar (MOB 2) probably belonged to the ship’s equipment. A close parallel comes from Giardini Naxos, where a marble carrier sank carrying on board a mortar of volcanic stone that was found broken in half under a column shaft.\footnote{Basile 1987, 383-5, fig.9a; Basile 1988, 136, fig. 6.}

### Ceramic, Bronze, and Lead Items

#### Amphoras

There were at least three amphoras carried on board the Punta Scifo A shipwreck, of which only the necks, handles, and parts of the shoulders survive, while their bodies and toes have been lost. Now on display at the Nautical Museum of Capo Colonna, two
of them (MOB 3 and MOB 4) can be identified as of Aegean origin (Kapitän 2/Augst 54/Keay 12/Peacock & Williams 47/Niederbieber 77/Berenice MRA 7/ Robinson M237/Ostia 6). The third one (MOB 5), even if its bulging neck is reminiscent of eastern Mediterranean shapes, belongs to a less well-documented type.

Amphoras MOB 3 and MOB 4 represent an easily recognizable type, widespread throughout almost all the provinces of the Roman empire, manufactured from the second to the fifth centuries A.D. The first discovery of this type occurred in 1914, at the frontier of the empire: Niederbieber on the Rhine, Germany.\(^\text{197}\) Excavations at the Athenian Agora and at the sanctuary of Demeter and Kore in Corinth have revealed several more examples, in stratigraphic contexts ranging from the early third to the early fifth century A.D.\(^\text{198}\) The texture of the fabric is reminiscent of amphoras produced at Kos, and according to S. J. Keay it is likely that these containers were manufactured there.\(^\text{199}\) Traces of pitch may suggest that this type was used for the transportation of wine.\(^\text{200}\)

Gerhard Kapitän was the first to document the type aboard Roman Imperial merchantmen. In 1971 he published two necks from the Marzamemi 1 marble carrier (broadly dated to the third century A.D.), and in 1972 a few more identical containers were recorded from the third-century A.D. Ognina wreck.\(^\text{201}\) The discovery, in the same wreck, of a group of four Severan coins withdrawn from circulation in the years 210-215 A.D. provided a useful \textit{terminus post quem} to date this cargo.\(^\text{202}\)

\(^{197}\) Keay 1984, 136.
\(^{198}\) Athens: see Robinson 1959, 69, plate 15, K 113; 77, plate 16, L 33; 106, plate 28, M 237; 110, plate 29, M 274; 112, plate 31, M 303; Corinth: see Warner Slane 1990, 108-17, fig. 254, plate 15, n. 254.
\(^{199}\) Keay 1984, 137.
\(^{200}\) Panella 1973, 599; Freschi 1987, 5.
\(^{201}\) Kapitän 1971, 303, figs. 6-10; Kapitän 1972, 246, fig. 4.
\(^{202}\) Price 1974, 151-3.
In Sicily, A. J. Parker and D. M. Squire documented two more fragments of the Kapitän 2 amphora type in the Terrauzza shipwreck, dated to the late second century A.D., G. Purpura found one Kapitän 2 neck aboard the third-century A.D. marble carrier off Capo Granitola, and B. Basile found another similar neck in the marble carrier that sank at Giardini Naxos. The Bagaud Island wreck, in southern France, provides similar fragments, but its entire assemblage must be carefully examined because it is a heavily-disturbed site, “a sea cemetery” in F. Benoît’s own words. The Punta Scifo B shipwreck had two Kapitän 2 amphoras as well. Along with two bronze ladles decorated with swans’ heads found at both Punta Scifo A and B, these amphoras create a possible connection between the two adjacent naves lapidariae.

The above considerations lead to three conclusions. First, the Severan coins from Ognina provide a date extremely close to the consular inscriptions of A.D. 197-200 found on the marble items from Punta Scifo A. Secondly, only a few Kapitän 2 amphoras were found in each wreck, mixed among the main cargo. In Marzamemi 1 a “scarce number” of sherds of this type were discovered. At Ognina 90% of the amphoras were “Africano piccolo” types, two at Terrauzza and two in Punta Scifo A, and a few fragments at Capo Granitola. It is possible that these Kapitän 2 amphoras do not represent the main cargo, but rather possessions of the ship itself, carried in limited quantity for the personal use of the crew.

203 Parker and Squire 1974, 27-34, fig. 3.4. 
204 Purpura 1977, 58-9, fig. 4; Basile 1987, 375. 
205 Parker and Squire 1974, 31. 
206 Freschi 1987, 5, n. 8. 
207 Kapitän 1971, 303. 
208 Kapitän 1974, 150. 
209 Purpura 1977, 58-9, fig. 4.
Not much is known about the third amphora neck from Punta Scifo A, which has no diagnostic features preserved. The only possible parallel is a similar amphora found during the excavation of the sanctuary of Demeter and Kore in Corinth, stratigraphically dated to the first quarter of the third century A.D.²¹⁰

**Pitchers (or Jugs), Sigillata Ware**

Five fragments of trefoil-mouth containers, from the Punta Scifo A wreck site, are also on display at the Nautical Museum of Capo Colonna. The bodies are not preserved, and during an exhibition in 2006 it was not possible to take measurements of their neck heights and mouth openings.

Their necks are short and straight, the rims curve outwards and have a thick, raised band at the lower extremity. The most significant feature is the single vertical handle rising above the rim and decorated with two vertical grooves, found on jugs and pitchers from Corinth, Athens, and Ostia.²¹¹ If these parallels are viable, they could suggest a date range from the middle of the second century to the third century A.D. Their production center has been tentatively assigned to the eastern Aegean or the Black Sea.²¹² Few conclusions can be drawn regarding the fragments of one terra sigillata plate and two lids that are exhibited in Capo Colonna (MOB 6), except to say that these fragments may testify to the presence of a galley on board the ship.

²¹⁰ The amphora neck is similar to the type “Warner Slane 249.” (Warner Slane 1990, 116, fig. 249).
Bronze Ladles, Candelabrum, Lead Decoration with Heracles and the Hind

The last group of artifacts found in 1983 during the Aquarius excavation and now on display in Capo Colonna includes two bronze ladles (MOB 7), one tall bronze candelabrum (MOB 8), and a decorative lead statuette representing Heracles holding the Ceryneian hind by the horns (MOB 9). These items have numerous parallels throughout the Roman world, with some for the ladles dating back as far as the fifth century B.C. It is difficult to propose a date without having had the opportunity to study and measure the items closely.

Each of the two ladles has a long handle, rectangular in section, that curves upward, tapers, and ends in a curved swan’s head. The purpose was not only decorative, but to provide a suspension loop for hanging: the curved beaks provide hooks for the handles. This type of animal decoration is extremely common in Roman times, and appears both in a wall-painting from Pompeii representing Roman silverware and as a hook to hang up oil lamps. Two similar bronze handles ending in a swan’s head were found on the nearby Punta Scifo B shipwreck.

The bronze candelabrum is noteworthy not only because its base is decorated with lions’ paws but because it represents an expensive article typically owned by wealthy individuals in ancient Rome. Bronze oil lamps were meant to be exhibited in the best rooms of the house and represented, “due to the elegance of their decoration, real status

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213 See catalog entry MOB 7. The fifth-century B.C. ship sunk at Alonnesos (Greece) had onboard a bronze ladle. (Hadjidaki 1996, 587).
214 For the fresco in Pompeii, see: Coarelli 2002, 390; Dunbabin 1993, 119, fig. 3. For the oil-lamp, currently at the Museo Nazionale Romano, see: De’ Spagnolis and De Carolis 1983, 63, 22.1.
215 Freschi 1987, 5.
symbols for the homeowner.”

If the simple bronze oil lamps found at Pompeii and Herculaneum, without vertical stands, were “uncommon objects, expensive, rarely belonging to not well-off individuals […] sometimes conserved in a strongbox,” it is easy to appreciate the value of the tall, vertical stand from Punta Scifo A. In Fabius Rufus’s residence, one of the richest houses in Pompeii, six bronze oil lamps were discovered – the highest number ever found in one single locale. It is impossible to know if more oil lamp stands were carried on board the Punta Scifo A ship, and were looted in the years following the discovery, but this possibility must be considered: on the Mahdia shipwreck there were at least five bronze candelabra aboard.

Finally, a small lead statuette represents the myth of Heracles capturing the hind (MOB 9). The three-dimensional group is arranged on a flat base with one bronze nail in place and a hole for a second, indicating that it was meant to be nailed to some wooden surface. A thin lead strip connecting Heracles’ back to the pedestal keeps the statuette upright, and a cavity inside the hind’s body is probably for a protruding piece of wood that had to fit there. It follows that this group was made to be seen only from the front, and the nails were hammered into a piece of wood. The use of lead, which is extremely resistant to marine corrosion, suggests that this artifact may have decorated a part of the ship.

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216 De’ Spagnolis and De Carolis 1997, 91.
217 De’ Spagnolis and De Carolis 1988, 17.
218 De’ Spagnolis and De Carolis 1988, 17.
Conclusions

Like all ancient shipwrecks, that at Punta Scifo A is a complex assemblage of artifacts, which poses more questions than answers. The current state of the site, the amount of time that has passed since it was first discovered, and the asystematic recovery of artifacts make a comprehensive study difficult. The present research was conducted a century after the original discovery, and many of the artifacts mentioned at that time are no longer in evidence. Even heavy items, including column shafts, have disappeared. In addition, the site itself is in poor shape. The Forcellinis raised 150 tons of marble, nearly obliterating the shipwreck. It is difficult to reconstruct the site as it appeared at the time of its discovery, much less to imagine what the ship must have looked like before it sank.

What was the ultimate destination of this marble shipment? Was it intended to be divided among several buyers, or did it represent a single consignment meant to fulfill a specific order? Punta Scifo A’s point of departure was probably located along the western coast of Asia Minor -possibly Ephesus or Miletus- but the vessel’s final destination, somewhere in the western Mediterranean, remains enigmatic. Because the column shafts and blocks carry inscriptions and notches for lead seals usually connected with Imperial ownership of marble items, it is possible that the cargo was commissioned by the emperor and was headed to Rome. The quality of the material, the number and scale of artifacts, their relative cost, and the apparent unity of the cargo make it reasonable to hypothesize that the whole cargo was meant to fulfill a single order. It may be possible, however difficult to prove, that the 16 columns were destined to decorate a two-level
façade, the six statue pedestals made to be placed in front of them, and 13 marble basins and highly decorated stands to embellish the building itself.

The column shafts follow a well-defined set of lengths; the basins appear to fall into two distinct size groups of 3 ½ and 7 Roman feet, and lone examples of a completed basin and a finished pedestal with lions’ paws serve as templates for finishing similar items. These clues all suggest a clear pattern of standardization in production and for facilitation of completion after reception. All of the evidence hints at a cargo destined to adorn a richly-decorated building, commissioned with a particular design in mind. Even the blocks of *pavonazzetto* are, in a certain sense, close to completion, and may have been earmarked to cover the walls and floors of the building for which the other *pavonazzetto* items had been designed.
CHAPTER IV
THE PUNTA SCIFO A SHIPWRECK IN CONTEXT:
MARBLE QUARRIES AND SEA TRANSPORT IN THE SEVERAN AGE

When the citizens of Chios showed Cicero their city walls made of the beautiful pinkish-white marble quarried on the island, he wittily remarked: “I would be much more amazed if you had made them of travertine.” Cicero noticed that there was nothing special in building walls with a particular stone quarried only 2 km away, however fine and spectacular it might be. Rome, on the other hand, had already demonstrated its capacity to import white and colored marbles from every corner of the Mediterranean.

In the last two centuries of the Republic some members of the senatorial class, following the “ancestors’ way,” tried without success to oppose the introduction of marble, which was seen as a symbol of useless luxury. Yet, while Cicero was alive Caesar traveled from camp to camp carrying with him mobile mosaic floors, and shortly afterwards Augustus boasted to “have found [Rome] a city of bricks and left [it] one of marble.” Thus between the end of the Republic and beginning of the Empire there appeared a remarkable shift in cultural attitudes toward the use of exotic building stone.

In the first century A.D. the amount of marble Rome consumed was so impressive that Pliny the Elder dedicated almost an entire book of his Historia Naturalis to

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220 Plin. *HN* 36.5.46.
221 Suet. *Iul.* 46.
complaining about the corruption of his age, in which nature was violated and its eternal laws subverted for the sake of fine marbles:

   Headlands are laid open to the sea and nature is flattened. We remove the barriers created to serve as the boundaries of nations, and ships are built especially for marble. And so, over the waves of the sea, nature’s wildest element, mountain ranges are transported hither and thither.223

During the second and third centuries A.D. the marble trade continued to expand, spreading from the capital to the provinces. Fashionable eastern stone became a widely-adopted building material that not only the rich, but also the upper middle class could afford.224 This was one of many administrative successes of the Empire at the peak of its power: organizing the production, transportation, and distribution of quarried marbles in an efficient way, and making them accessible on a scale never seen before. Rome, in other words, laid the foundations of a well-integrated Mediterranean economy, whose quarries, shipwrecks, and deposits of unused raw materials still testify to the scale of the entire system.

   The relatively low cost of water transportation, along with the safety of trade guaranteed by the pax romana within the Mediterranean made the marble trade sustainable for more than three centuries. In spite of the previous resistance to its adoption, marble became a popular building material, which contributed greatly to the embellishment of the

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223 Plin. HN 36.1.2-3.
224 Between the second and third centuries A.D. various Roman provinces, especially North Africa, began importing marble for their public and private buildings, a sign that more marble was available on the market, and its cost was more affordable than in the past. For specific case-studies, see Ward-Perkins 1951, 89-104; Dodge 1988, 215-30; Pensabene 1990, 250-3.
Empire’s most prominent cities. This marble had to be imported from remote locations, and “the improbably economic phenomenon”\textsuperscript{225} of a trade in stone did take place.

In order to better understand the shipwreck under consideration here it is necessary to gain a broader perspective of the entire system at work. In the first century B.C. Cicero was already proud of it, and improvements would continue during the two centuries that followed. This chapter provides a brief summary of the introduction of this building material in Rome at the end of the Republic, its widespread use under the Empire, and will review in detail what is known regarding the production of the Proconnesian, Docimian, and Carystian quarries –all marble types carried by the five ships that sank to the south of Croton.\textsuperscript{226}

**A Historical Outline of Marble Imports to Rome**

*The Early, Controversial Adoption of Marble during the Republic*

Once Rome conquered the East in the second century B.C., the Roman ruling class became the natural successors of the Hellenistic monarchs, and they began adopting the former dynasts’ court rituals and symbols of power. The battle of *Magnesia ad Sypilum* (189 B.C.) is traditionally considered a crucial landmark between Roman involvement in eastern affairs and the real conquest. Pliny saw this event as a cultural watershed: after the

\textsuperscript{225} As J. C. Fant writes (1993, 71), “stone is heavy, dense and expensive to transport. In the ancient world people looked for building stone close at hand, and stone from local quarries was rarely carried very far from its source.” The Romans were able to overcome the limits imposed by the cost of transportation, making marble available on a large scale.

\textsuperscript{226} The Punta Scifo A shipwreck was carrying *pavonazzetto* and Proconnesian marble; the Capo Cimiti merchantman five *cipollino* column shafts. The other three cargoes have not been analyzed yet.
victory in Asia, he says, the statues of the gods, previously made of terracotta and wood, came to be replaced with new images of marble and bronze.\textsuperscript{227}

Only a few decades later further events granted Rome unrestricted access to the widest range of white and colored marbles known in the entire Mediterranean. The definitive conquest of Carthage (146 B.C.) opened up the renowned quarries of \textit{giallo antico} located in Tunisian Simithus (modern Chemtou). These quarries provided a wonderful yellow marble that was widely appreciated in antiquity; Diocletian’s \textit{Edict on Maximum Prices} relates that it was worth 200 denarii per Roman foot in A.D. 310.\textsuperscript{228} In the same year that Carthage was conquered, Corinth fell to the army of L. Mummius. With Greece pacified and increasingly integrated into the Roman provincial system, the famous sources of Pentelic, Hymettian, Parian, Naxian, and Thasian marbles also became part of Rome’s new economic system. The kingdom of Pergamon was bequeathed to Rome in 133 B.C., and with it came the Docimium production centers in Phrygia, where most of the artifacts from the Punta Scifo A shipwreck were quarried. After the battle of Actium in 31 B.C., Egypt was integrated into the emperor’s personal patrimony, unlocking the porphyries and granites that had been the symbol of autocratic, divine power since Pharaonic times.

However, while these acquisitions were being finalized, autocratic power and oriental ceremonies were still seen contrary to the long-established Roman traditions of Republican frugality. How could Roman senators reconcile their appetite for decadent

\textsuperscript{227} Plin. \textit{HN} 35, 34.
\textsuperscript{228} For more information regarding \textit{giallo antico} see Lazzarini 2002, 243-4; for its price in Diocletian’s Edict see Giacchero 1974, 210.
Eastern materials with the modesty typical of their forefathers? The Roman upper classes had conquered a world which, in turn, threatened to conquer them.\textsuperscript{229} The only way to preserve Roman tradition was to mount a fierce resistance, and the battle against luxury began as soon as the first eastern marble items entered the city.

It is quite curious that the first recorded import of marble items to Rome did not come from the East, nor from North Africa or Greece, but, unexpectedly, from Croton itself. According to Livy, the Roman censor Quintus Fulvius Flaccus attempted to reuse half of the marble roof tiles from the temple of Hera Lacinia to erect his own temple to Fortuna Equestris in Rome.\textsuperscript{230} It was the year 173 B.C., only a decade and a half after the battle of Magnesia had been fought. Ships were used to carry the tiles from Croton to Rome.\textsuperscript{231} When Roman citizens noticed these unusual artifacts and started asking questions about their provenience, Flaccus’ robbery could not be concealed. He was summoned and entered the senate house, accused of destroying one of the most venerable shrines of Magna Graecia. The Senate gave the order to make expiatory sacrifices to Hera and to return the tiles to her temple in Capo Colonna. Apparently the tiles were abandoned at the temple because there were no craftsmen who remembered the techniques required to replace them. Some of these artifacts, made of Parian and Pentelic marbles, were found buried close to the sanctuary at the end of the 19\textsuperscript{th} century (Fig. 46).\textsuperscript{232}

\textsuperscript{229} Horace 2.1.156.
\textsuperscript{230} Livy, 42.3.1-11.
\textsuperscript{231} Livy, 42.3.3.
\textsuperscript{232} The Marquis Berlingieri discovered the tiles during the construction of his summer residence in Capo Colonna, and they were all crushed to make new mosaic floors in his palace in Croton. The Marquis Lucifero was able to retrieve some tiles though, and offered them to the Archaeological Museum of the city, where they are still visible at present. (Lenormant 1976, 222, n. 25; Ruga 1996, 100-1).
The account of Livy is interesting for two reasons. First of all, it is direct evidence that in the first quarter of the second century B.C. it was not unusual to ship marble by sea, avoiding the costs and difficulties of land transportation even for small, portable artifacts like roof tiles. Secondly, the import of marble tiles impressed the public so much, probably because it represented an oriental novelty deemed pretentious and extravagant for the Roman modesty, that the Senate was convened in a rush and decreed to send the tiles back immediately to the temple of Hera Lacinia. Religious concerns for the offense rendered to the immortal gods, taken alone, do not fully explain the Senate’s quick response in sending Flaccus’ tiles back to Croton - almost with the first ship available. It is equally likely that the senators did not want to upset their Italic allies by desecrating an ancient shrine of Magna Graecia, or to set the dangerous precedent of luxuria (decadent, extravagant luxury) taking place in Rome. Q. Fulvius Flaccus had to be prevented from becoming too popular and, therefore, a dangerously powerful political rival. The Republic and the supremacy of
its ruling families could be preserved, but a few ambitious individuals had to be kept at bay.

In late Republican Rome, ancient urbanization meant that it was not possible to substantially enlarge existing buildings, and so the social status of prominent families could be conveyed in only two ways: by the external appearance of their residence, or by the public monuments they offered to the entire city.²³³ Perhaps this is the real reason behind the vehement attacks against luxuria: to preserve the status quo of the Republic (and consequently the ruling families’ own influence) against some rich, leading individuals who sought to exploit Rome’s conquests for their personal advancement. It was dangerous for the safety of the Republic to let a few people publicize their power with the use of bronze or marble. It is no coincidence that both Caesar and Augustus loved marble: it was an instrument that made their power and prestige tangible to the public, with all the deep political consequences this implied.²³⁴

Consequently, the first temple of marble was not erected in Rome until 146 B.C., when Caecilius Metellus Macedonicus invited the Greek architect Hermodorus of Salamis to build the little, hexastyle temple of Jupiter Stator using Pentelic marble.²³⁵ At the end of the second century B.C. marble was used more and more, in public and private

²³³ As suggested by Pensabene 1998a, 334.
²³⁴ There is also a third consideration that can be made. According to Q. Fulvius Flaccus’ calculations, half of the roof tiles from a fifth-century B.C. hexastyle Doric temple would suffice to cover what was meant to be the largest (ne... amplius) and the most splendid (aut... magnificientius) sacred building of Rome at the time. (Livy, 42.3.2). Apparently, the city that had defeated Carthage twice, conquered the Western shores of the Mediterranean, and humiliated Hellenistic kings such as Philip the Fifth of Macedonia and Antiochus the Fourth of Syria, did not have in 173 B.C. a temple large enough to compete with a three-hundred year old sanctuary from Magna Graecia. Further research in the field is needed, however, to prove or disprove Livy’s account.
²³⁵ Bianchi Bandinelli 1995, 146.
applications, even if on a limited basis and not without some criticism from contemporaries. Lucius Crassus for instance, consul in 95 B.C., did something so eccentric and effeminate for a Roman of his time, installing in his house on the Palatine Hill six small columns of Hymettian marble, each 12 Roman feet (3.55 m) tall, that Marcus Brutus immediately nicknamed him Palatine Venus. In 78 B.C., Marcus Lepidus went even further, using Numidian marble “in the most sordid manner” (vilissimo uso) to cover the door sills of his house. Lepidus’ contemporary Lucius Lucullus was so passionate for marble from Teos as to name it after himself, Luculleum. When Marcus Scaurus, aedile in 58 B.C., used 360 columns, each 38 Roman feet tall (11.25 m) to embellish the three-level stage of a theater otherwise made of wood, it was a clear signal that the age of Republican frugality was coming to an end. In 44 B.C., Gaius Julius Caesar imposed a tax on every single column shaft imported to Rome, testifying to the remarkable economic impact of the marble trade: a new era had begun.

The Early Empire: Roman Control over Marble Quarries

When Augustus emerged as emperor following the civil wars against Antony, he

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236 Plin. HN 36.2.7.
237 Plin. HN 36.8.49. Numidian marble is known as giallo antico, yellow in color, and comes from modern Tunisia. (Pensabene 1998a, 334).
238 Plin. HN 36.8.49-50. Tean or Luculleum marble, also known as africano, is of a dark-greenish color and comes from the quarries of Teos, close to modern Izmir in Turkey. (Ward-Perkins 1992f, 55).
239 Plin. HN 36.24.114-5. Compared with the 70 column shafts from the Mahdia shipwreck, sunk off Tunisia between 90 and 60 B.C., Scaurus’ 11.25 m-tall columns are, on average, three times taller. It is possible that Pliny emphasized their size and number to impress the reader with this Late Republican example of extravagance. Indeed, it is difficult to believe that wooden theaters with 360 columns in the façade ever existed.
240 Cic. Att. 13.6.1.
concentrated his efforts on the effective control of the Roman State, including the administration of marble quarries. In the case of Docimium imperial administration is certain: Strabo mentions an expanded productivity in Augustan times and implies a reorganization of the quarries administered by the procurators in Synnada.\textsuperscript{241} New beds dating to this time have also been found at the quarries themselves.\textsuperscript{242} In Italy, the quarries of Luna (modern Carrara) received particular attention. Located in Tuscany, they were the only source of white marble that rivaled the most notorious and expensive Greek varieties in color and texture. Augustus initiated the exploitation of these quarries on a systematic basis, using Carrara marble for the largest Roman monuments.\textsuperscript{243} In the first century A.D., Luna marble was exported on a large scale also outside of Italy, reaching southern France, Mauritania, and Crete.\textsuperscript{244} It may be possible, however thin the connection is, that with the help of his son-in-law Agrippa the emperor Augustus gained control of the quarries of giallo antico in Tunisia. An inscription found at Chemtou mentions an Officina Agrippae, but it is dated to A.D. 150. Thus, Agrippa may have been remembered more than a century after his death for his ownership or for having improved the quarries’ production, but this is far from certain.\textsuperscript{245}

Tiberius (A.D. 14-37) appears to have proceeded a step further. According to

\textsuperscript{241} Strabo 12.8.14.
\textsuperscript{242} Fant 1993, 75-6.
\textsuperscript{243} A Corinthian capital with the inscription “N XX […] / CAES A […] was used in the Forum of Augustus. A block of Luna marble bearing the name of an imperial freedman working at the quarries is still visible in the temple of Apollo Sosianus, completed between 32 and 20 B.C. The first consular date on marble from Luna dates to A.D. 27, in line with the information Suetonius (\textit{Tib.} 49.2) provides. (Pensabene 2002a, 15). For the \textit{Ara Pacis}, built between 13 and 9 B.C., Luna marble was used extensively. (Amadori, Lazzarini, Mariottini, Pecoraro, and Pensabene 1998, 48).
\textsuperscript{244} Amadori, Lazzarini, Mariottini, Pecoraro and Pensabene 1998, 51.
\textsuperscript{245} Fant 1993, 75, n. 80.
Suetonius, it was Tiberius who “took away from many cities and private citizens ancient
tax exemptions and the rights to exploit mines and quarries and to collect land rents.”\(^{246}\) It
seems possible that, following a trend initiated by Augustus and Agrippa, Tiberius
continued working towards the creation of a centralized internal imperial system to control
quarry production across the Empire.

Under Claudius (A.D. 41-54) the exploitation of a large portion of the Egyptian
quarries began: the “Mons Claudianus,” a name given to the production center of granite in
Gebel Fatireh, seems to reflect the direct involvement of Rome’s fourth emperor in its
reorganization process.\(^{247}\) Nero (A.D. 54-68) used green porphyry from the Peloponnesese in
his Domus Transitoria and villa at Sublacquea, and Vespasian (A.D. 69-79) had the
Templum Pacis built with red granite from Aswan.\(^{248}\)

The fact that no large eastern marble blocks or semi-worked column shafts have
been found at either Pompeii or Herculaneum, suggests that until A.D. 79 the flow of fine
marbles from Greece, Africa, and Asia Minor was directed mostly towards Rome.\(^{249}\) J. B.
Ward-Perkins noticed at Pompeii a large variety of fine imported marbles, but these are
laid in floors, or cut in thin, little slabs. The only marble used for door sills and other large
architectural elements at Pompeii and Herculaneum came from Luna in Tuscany.\(^{250}\)
Therefore, it seems reasonable to conclude that in the first centuries B.C. and A.D. Romans
were rebuilding their city as the new capital of the Mediterranean. This face-lift required

\(^{246}\) Suet. \textit{Tib.} 49.2.
\(^{247}\) Pensabene 1982, 22.
\(^{248}\) Dodge 1991, 35, n. 64-5.
\(^{249}\) Fant 1990, 95.
\(^{250}\) Ward-Perkins 1951, 98.
vast quantities of marble, and Rome was absorbing almost the entire production of the eastern quarries. It is not coincidental that wall paintings in the Vesuvian cities tried to imitate, with their multicolored frescoes, those fancy marbles that must have been hard to find outside of the capital, at least in large quantities.

_The Middle and Late Empire: Peak and Decline of Marble Trade_

At the beginning of the second century A.D. a radical change took place in Roman quarry organization. Under Trajan (A.D. 98-117) the first complex quarry inscriptions appear on blocks and column shafts, testifying to a new, reorganized method of extraction and inventory.\(^{251}\) This coincides with a Roman architectural revival; it will suffice to mention that the Forum and Markets of Trajan were considered a true wonder in antiquity. These buildings were covered with paintings, stuccoes, sculptures, and such an astonishing quantity of marble that they surprised the emperor Constantius the Second during his visit in A.D. 356, and remained until Late Antiquity one of the greatest marvels of Rome.\(^{252}\) The brick walls visible today, stripped in medieval times of their marble veneering, represent nothing but the skeletons of those once luxurious buildings esteemed so highly by ancient authors.

Hadrian (A.D. 117-138), the Antonines (A.D. 138-192), and the Severan Dynasty (A.D. 193-235) provided new direction to the marble trade; during their reigns marble was imported in massive quantities not only to Rome but to the outlying provinces. Septimius

\(^{251}\) The earliest recorded date is A.D. 107. (Ward-Perkins 1951, 97).

\(^{252}\) Amm. Marc. 16.10.15; Bianchi Bandinelli 1995, 238.
Severus for instance, rebuilt his North African hometown of Lepcis Magna using Proconnesian, Pentelic, and Docimian marble.\(^{253}\) In imitation of the monuments of the capital, and showcasing the prosperity of their own cities and an acceptance of the Imperial ideology, affluent individuals in the provinces commissioned projects at sites like Baalbek, Damascus, and Palmyra.\(^{254}\)

After the death of Severus Alexander (A.D. 235), another radical change seems to have taken place: all of the inscriptions on items coming from the imperial quarries suddenly disappear. One block of *pavonazzetto* found at Iscehisar (Docimium) was marked in the year 236, and it represents the latest known example of such an inscription.\(^{255}\) The 50 years that followed the death of Severus Alexander constituted a period of instability and turmoil which ended only under Diocletian’s reign (A.D. 284-305), though it is certain that the imperial quarry system did not collapse. The exploitation of some quarries even increased (notably Proconnesus and Docimium), while at others it almost ended. At Luna, for example, the Roman quarry system seems to have collapsed and Luna marble was replaced quite often by Proconnesian.\(^{256}\)

The year 301 saw the enactment of Diocletian’s *Edict on Maximum Prices*, reported in Appendix 4. With it, Diocletian tried to stop the inflation that was afflicting the Empire by fixing a maximum price for all sorts of wages and merchandise including 19 marble varieties. His efforts to fix prices, however, seem to have been limited at best; in A.D. 363 the cost of marbles had reached such an exorbitant level that Julian allowed private citizens

\(^{253}\) Ward Perkins 1951, 89-93.  
\(^{254}\) Dodge 1988, 227.  
\(^{255}\) Fant 1987, 129.  
\(^{256}\) Pensabene 2001, 45.
to open new quarries, hoping the increased production would lower prices. The new quarries quickly became so active and prosperous that in A.D. 393 a second imperial decree forced them to close; presumably, the prices had dropped so dramatically that no one was buying from the state-owned production centers anymore.

The fourth century saw a drastic drop of marble imports to Rome, after Constantine moved the imperial residence to Byzantium (A.D. 330). At this time the reuse of marble stripped from old monuments became common: a famous example is the Arch of Constantine, in which reliefs and sculptures were appropriated from earlier monuments of Trajan, Hadrian, and Marcus Aurelius. These events in the West likely resulted from two causes: the emperors’ presence in the East caused imports to shift from Rome to Constantinople, and the new capital city’s proximity to Proconnesus and Docimium attracted most of their production. It does not seem accidental that at the end of the fourth century A.D. tax breaks were given to everyone except marble contractors located near Constantinople: apparently, they were doing well enough not to need them.

In the Byzantine age the production of the eastern quarries did not stop, but the exports were directed mostly towards Constantinople, northern Africa, and the strongholds of the Byzantine empire in the West, particularly Ravenna. In the reign of Justinian (A.D. 527-565) the well-known “basilica shipwreck” sank at Marzamemi, Sicily, carrying a complete set of marble architectural elements to decorate a new church. Its cargo of 28 columns, bases, and capitals in Proconnesian marble, along with a pulpit in verde antico.

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257 Cod. Theod. 10.19.2.
259 Bianchi Bandinelli 1971, 83.
260 Fant 1993, 77.
from Thessaly represents the last bit of archaeological evidence testifying to the existence of trade between east and west in the mid-sixth century A.D.261

***The Severan Age: Cultural Background for the Punta Scifo A Shipwreck***

Septimius Severus (A.D. 193-211), founder of the Severan Dynasty, was the first Roman emperor to come from North Africa. His native town, Lepcis Magna, underwent a massive renovation program under his rule. Syria was the homeland of his wife Julia Domna, and it was in Syria that the future emperors Marcus Aurelius Antoninus (A.D. 218-222) and Severus Alexander (A.D. 222-235) were born. These two provinces were particularly privileged during the rule of the Severans, and Syria enjoyed special prominence in the Roman cultural and religious environment of the time. Eastern esoteric cults became so widespread under Septimius Severus, Caracalla (A.D. 211-217), and especially Marcus Aurelius Antoninus, that the latter emperor was also a priest of the sun-god *Elah-Gabal* at Emesa, and became known as Elagabalus.262

The architecture of the Severan Age has been defined as one of “consolidation and achievement rather than of important new experiment”263 because these emperors restored existing buildings rather than erecting new ones. Rome, nevertheless, saw at least five new monuments commissioned by the Severan emperors: the Septizodium, the Arch of Septimius Severus, Caracalla’s Temple of Serapis, Elagabalus’s Temple of Ba’al on the

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262 Cary and Scullard, 1984, 497; Bianchi Bandinelli 1971, 19. The fact that the lion was deeply associated with the eastern cult of the Phrygian goddess Cybele and was also a symbol of Africa, it might be connected with the lions’ paws that appear on the marble stands from Punta Scifo A.

Palatine, and the Thermae Antoninianae.

Septimius Severus dedicated the so-called Septizodium in A.D. 203, a monumental façade erected to conceal some buildings behind it; its remains were torn down in 1588-89. From a drawing Martin van Heemskerk made before its destruction it is known that the building had three rows of superimposed Corinthian columns. Various nymphaea built in Asia Minor in the first and second centuries A.D. provide the Septizodium’s closest parallels, further strengthening the cultural connections between the Severans and the East. The connection with the Orient is explicit in Caracalla’s Temple of Serapis, in which Ward-Perkins noticed a strong “ Asiatic” character, and in Elagabalus’s Temple of Ba’al on the Palatine.

In A.D. 203 an arch commemorating Septimius Severus’ victories over the Parthians was erected at the northeast corner of the Roman Forum. Proconnesian marble was used for the columns, whose shafts are 24 Roman feet tall (7.10 m), while the remaining structural parts were made of Pentelic marble from Attica. The use of Luna marble is uncertain: it appears to have been utilized only for the relief panels.

The Thermae Antoninianae, started in A.D. 212 and dedicated four years later, were the most well-known and esteemed Severan building complex in antiquity, due to their magnitude, lavishness, and perfectly-structured system of heating, water-supply, and drainage. This complex could host 1,600 bathers, and remained in use until the middle of

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264 Nash 1962, 302-5.
267 Brilliant 1967, 29.
269 Brilliant 1967, 55.
270 Grant 1996, 71.
the sixth century A.D. when the aqueducts that supplied them were destroyed. The main structural elements of the baths have survived, along with portions of mosaic pavements, countless fragments of marble veneer, and underground service corridors.

What connects these thermae to the Punta Scifo A shipwreck is the presence of Docimian marble in the baths, used for some of the column shafts and as veneer. The preserved column shafts, however, are longer than those found in the Punta Scifo A shipwreck: they measure 36, 30, and 24 Roman feet (10.65, 8.88, and 7.10 m respectively), while similar elements from the Punta Scifo A shipwreck are never taller than 20 Roman feet (5.92 m).

Another conspicuous parallel is a block of white Docimian marble found in the Baths of Caracalla which bears a consular date of A.D. 206 and is the only item known -outside of the Docimian quarries- to carry the three letters “COM”, which appear on the blocks and column shafts from Punta Scifo A. Additionally, the numerous marble basins from the wreck (LAB 1-7) may well have been designed for use in a thermal complex. The lead seals Orsi saw on the blocks and column shafts are now lost, but recessed notches for them are still visible on some of the marble artifacts in Capo Colonna and Corazzo (COL 1, BLC 8). These seals are known to designate quarried items belonging to the emperors, and may suggest a further connection with an imperially-sponsored building project.

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271 Nash 1962, 434-41.
272 DeLaine 1997, 32, 70.
274 As seen in Chapter III, p. 109, the Byzantine historian Olympiodorus saw in the thermae of Diocletian 3,200 small marble basins, and many more were present in Caracalla’s public baths.
275 Spagnoli 2002, 496.
The Punta Scifo A shipwreck adds interesting details to the general picture of marble trade in Roman times. Its cargo provides evidence to hypothetically connect quarried marbles to their possible use at a specific destination, and it exemplifies every major step in the process of supply, transportation, and final use of quarried material. In order to fully implement the data from Croton, other wrecked marble carriers will be examined.

*Naves Lapidariae of Roman Date: Review of the Evidence*

*Literary Sources*

“What’s wrong with you?’ he asked. ‘Do you think I am a beast of burden or a ship carrying stone?’”

So complained the slave Corax in Petronius’ *Satyricon*, overwhelmed by the excessive weight of Eumolpus’ litter. The scene, curiously enough, was set in the streets of Croton in the mid-first century A.D. Direct written references to *naves lapidariae* or *naves marmorum* appear only four times in Greek and Latin literature, but Corax’s words suggest that they were ships with distinctive features. Ancient writers apparently recorded only the most unusual and extraordinary of these vessels, such as the famous ships of Augustus and Caligula, which will be reviewed here.

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277 In addition to the quoted passage of Petronius, the only other references known are Plin. *HN* 36.1.2-3 (*naves marmorum*), and IG I', 336, 1.8 *(ναῦς λιθαργωγοί)*; *FD* III, 5.19, 1.47. A papyrus from Panopolis mentions “ten state ships” (*πλοία τῶν δημοσίων δέκα*) sent to Aswan, in Egypt, to transport column shafts to Alexandria, without adding further details. (P Panopolis 2, 43-50).
Pliny the Elder says that ships are built due to the explosion of the marble trade in Early Imperial times (navesque marmorum causa fiunt), implying that without ships, no marble would have reached Rome. Even though Pliny does not describe their particular construction features, he relates how the largest among them were put on permanent exhibit in the forerunners of nautical museums.\(^{278}\)

Augustus and Caligula each ordered a ship to be built to carry an obelisk from Egypt to Rome. The one Augustus had built was so large and impressive that it was displayed in permanent docks in the harbor of Puteoli. In Pliny’s point of view this ship was “more extraordinary than all things seen at sea.”\(^{279}\) Augustus’ ship was later destroyed by fire, and Claudius converted Caligula’s vessel into a caisson filled with hydraulic concrete; once sunk in Ostia, it created an artificial base for the mole of the Claudian harbor.\(^{280}\) Recent archaeological investigations of the left mole have yielded impressions in the concrete which may have been made by ship’s frames.\(^{281}\) If the impressions are indeed those of Caligula’s ship, then we can estimate that the original vessel was 104 m long, 20.3 m wide, and 12.5 m high, for a total displacement of 1,300 tons: a true giant of the sea, even for centuries to come.\(^{282}\)

Constantine, too, commissioned the construction of a gigantic ship to carry an obelisk from Alexandria to Rome, which Ammianus Marcellinus describes as “a ship of never-before-seen dimensions, moved by 300 oarsmen.”\(^{283}\) The sheer size of these vessels

\(^{278}\) Plin. *HN* 36.1.2.


\(^{281}\) Testaguzza 1970, 91, 114-5.


\(^{283}\) Amm. Marc. 17.4.13.
made them white elephants; too large and difficult to maneuver for practical purposes. It is
indeed meaningful that both Augustus’ and Caligula’s barges, having reached Italy, never
saw the open sea again. These ships did not represent normal marble carriers, which had to
be, with all probability, easy to handle, sturdily-built, and extremely stable, since a
minimum shift in the cargo’s position aboard would have had dire consequences.

Two additional references are useful for reconstructing what ancient marble carriers
may have looked like. The first is an inscription from the Temple of Apollo at Didyma that
mentions the existence of νήκς λιθογραφοί (literally “ships carrying stone”). The second,
another inscription from Didyma, is the only evidence we have regarding the general shape
of these vessels. They are called ᾠμφυπρύμνονς (“with a double stern”), meaning that
their bow and stern were probably similar in shape, in order to facilitate the docking of the
ship, along with the loading and unloading operations, and to distribute the heavy cargo
equidistant from the center of the ship.

Finally, there is a papyrus from Panopolis (Egypt), in which Aurelius Isidorus, one
of Diocletian’s procurators, mentions “ten state ships” (πλοῖα δήμων δέκα) sent to
Aswan, Egypt, to transport columns from the quarries to Alexandria. Even if this
document does not explicitly mention naves lapidariae, it shows that state-owned boats
were used to carry marble columns on the Nile River. Aurelius Isidorus, however, does not
specify whether these ships were specially designed for the task, even if, given the nature
of the cargo, this is a likely possibility.

284 IG, I 336, 1. (In: Martin 1965, 165)
285 Martin 1965, 165.
Archaeological Evidence

The actual remains of several *naves lapidariae* lost in antiquity are still visible on the seafloor, providing important evidence to complete the broad picture outlined by ancient writers. As it is summarized in Table 18 and Fig. 47, there are indeed no fewer than 33 marble cargoes known at present, mostly belonging to the Imperial period, from the first century B.C. to the sixth century A.D. It would appear, therefore, that *naves lapidariae* would be among the best-documented ships of the ancient world, given the sheer number of examples that have survived. This, however, is not the case. With the exception of the information available for Torre Sgarrata, Mahdia, and INA’s current excavation in the Bay of Kızılburun (Izmir, Turkey), the full excavation of a Roman marble carrier has never been completed.\(^\text{287}\)

There is, therefore, a remarkable disparity between the number of known shipwrecked marble cargoes and the number of those studied. The lack of data leaves gaps in our understanding regarding this type of merchantman, and without the analysis of actual hull remains to reveal construction details of the ship itself, any characteristics that differentiated a *navis lapidaria* from other merchantmen remain unknown. The small Skerki Bank F shipwreck, for instance, with only six blocks and two column shafts on

\(^{287}\) While writing these pages, the third excavation season of the Kızılburun shipwreck is complete. The Kızılburun marble carrier, thanks to its depth (45 m) and remote location along the barren Turkish coastline, represents a *navis lapidaria* of late Hellenistic period (second or first century B.C.) which sank quickly, as the organization of the eight drums suggests – they are indeed still stacked neatly one next to the other. Once fully published, and if remains of the hull are preserved, this ship could be the first of its kind to be known in its entirety. (Carlson 2006). For more information regarding the Torre Sgarrata shipwreck, see Throckmorton 1989, 263-274; Antonelli 2002, 63-121.
board among amphoras, kitchen ceramics, and some organic cargo that did not survive, seems to have been just a small mid-first century A.D. merchantman similar to many others of its age, suggesting that some ships did not transport stone exclusively.\(^{288}\)

It must also be considered that the survival rate and discovery process of marble carriers make them a peculiar class of ancient shipwreck. Even though marine borers and weathering of the sea erode marble, the rate of decay of submerged stone is relatively slow, and after two millennia on the seafloor, this kind of material often survives in reasonably good condition. One consequence of their preservation, the large size and weight of their cargoes, is that this particular type of site is easily located by sport divers. It is not coincidental that most of the wrecks reported in Table 18 are located in shallow waters; while deeper sites undoubtedly exist – the 60-meter deep Mahdia shipwreck, or the Skerki F site, at 765 m of depth, for instance – SCUBA divers are mostly active at depths less than 50 meters.

As opposed to amphora carriers, the enormous weight of stone cargoes should help preserve these sites from the destructive action of looters, even though smaller, portable artifacts are occasionally removed from their original context. It is likely that looters visited the Punta Scifo A and B shipwrecks on many occasions, and even if they were unable to raise marble blocks and column shafts, they may well have removed artifacts they were able to lift to the surface.\(^{289}\) It is reasonable to assume most of the assemblages in shallow waters are incomplete, even though they may not appear so.

\(^{289}\) The statuette of Eros and Psyche was indeed found by local fishermen.
<table>
<thead>
<tr>
<th>Country</th>
<th>Date</th>
<th>Marble Type</th>
<th>Cargo</th>
<th>Tons</th>
<th>Depth (m)</th>
<th>Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Altınkum Turkey V3VI A.D.</td>
<td>Unknown</td>
<td>25 column bases</td>
<td>25</td>
<td>5</td>
<td>15</td>
<td>Corint. capitals</td>
</tr>
<tr>
<td>Camarina Italy</td>
<td>Middle III A.D.</td>
<td>Limestone</td>
<td>2 columns, 10 blocks</td>
<td>20</td>
<td>3</td>
<td>Parker 1976, 25-9.</td>
</tr>
<tr>
<td>Cape Izmetiste Croatia First Half II A.D.</td>
<td>Green granite (1), Limestone (9)</td>
<td>27 column shafts (fragments)</td>
<td>6</td>
<td>10</td>
<td>30-40</td>
<td>Jurčič 2000, 65 n. 20.</td>
</tr>
<tr>
<td>Cape Spitha Greece</td>
<td>Egyptian granite</td>
<td>Ca. 65 blocks and column shafts</td>
<td>27</td>
<td>6</td>
<td>Ca. 30</td>
<td>Trockmorton 1983, 17-23.</td>
</tr>
<tr>
<td>Capo Bianco Italy Roman</td>
<td>Cipollino, Proconnesian</td>
<td>5 columns, 35 column shafts, 3 statue pedestals</td>
<td>5</td>
<td>5.9</td>
<td>150</td>
<td>Freshi 1991, 1988, 77-86.</td>
</tr>
<tr>
<td>Capo Cimiti Italy Imp. Age</td>
<td>Cipollino, Proconnesian</td>
<td>49 Blocks, 3 statue pedestals</td>
<td>3</td>
<td>150</td>
<td>30 m</td>
<td>Purpura 1977, 1987, 55-95, Purpura 1996, 328-36.</td>
</tr>
<tr>
<td>Capo Granitola 1 Italy III-IV A.D.</td>
<td>Proconnesian</td>
<td>49 Blocks, 3 statue pedestals</td>
<td>3</td>
<td>150</td>
<td>30 m</td>
<td>Purpura 1977, 1987, 55-95, Purpura 1996, 328-36.</td>
</tr>
<tr>
<td>Euboea Greece Roman</td>
<td>Proconnesian?</td>
<td>3 blocks + hull</td>
<td>5</td>
<td>30 x 10 m²</td>
<td>5 m</td>
<td>Wachsmann 2005, unpublished report.</td>
</tr>
<tr>
<td>Shipwreck</td>
<td>Country</td>
<td>Date</td>
<td>Marble Type</td>
<td>Cargo</td>
<td>Tons</td>
<td>Depth (m)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------</td>
<td>----------</td>
<td>---------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>Shipwreck</td>
<td>Country</td>
<td>Date</td>
<td>Marble Type</td>
<td>Cargo</td>
<td>Depth (m)</td>
<td>Tons</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>------</td>
<td>-------------</td>
<td>-------</td>
<td>----------</td>
<td>------</td>
</tr>
<tr>
<td>Methone 7</td>
<td>Greece</td>
<td>I-II A.D.</td>
<td>Lapis</td>
<td>4 sarcophagi + lids</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Meloria C</td>
<td>Italy</td>
<td>Roman Imperial?</td>
<td>Luna</td>
<td>11 blocks</td>
<td>N/A</td>
<td>4-5</td>
</tr>
<tr>
<td>Port-de-Bouc</td>
<td>France</td>
<td>N/A</td>
<td>N/A</td>
<td>1 column</td>
<td>13</td>
<td>N/A</td>
</tr>
<tr>
<td>Porto Novo</td>
<td>France</td>
<td>A.D.</td>
<td>Luna</td>
<td>4 col. shafts 5 blocks</td>
<td>N/A</td>
<td>10-12</td>
</tr>
<tr>
<td>Porto Cesareo</td>
<td>Italy</td>
<td>A.D.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>25</td>
</tr>
<tr>
<td>Porto Cesareo</td>
<td>Italy</td>
<td>A.D.</td>
<td>Sarcophagi</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Porto Cesareo</td>
<td>Italy</td>
<td>Column shafts</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Punta Cicala</td>
<td>Italy</td>
<td>III A.D.?</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Punta Safo A</td>
<td>Italy</td>
<td>III A.D.</td>
<td>Pavoazzetto Proconnesian</td>
<td>&gt; 69 blocks and column shafts</td>
<td>5</td>
<td>200</td>
</tr>
<tr>
<td>Punta Safo B</td>
<td>Italy</td>
<td>III A.D.</td>
<td>Proconnesian?</td>
<td>53</td>
<td>8</td>
<td>350</td>
</tr>
<tr>
<td>Shipwreck</td>
<td>Country</td>
<td>Date</td>
<td>Marble Type</td>
<td>Cargo</td>
<td>Depth (m)</td>
<td>Tons</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------</td>
<td>------------</td>
<td>-----------------</td>
<td>------------------------------------------------------------------------</td>
<td>-----------</td>
<td>------</td>
</tr>
<tr>
<td>30. Şile</td>
<td>Turkey</td>
<td>I A.D.</td>
<td>Green marble</td>
<td>Columns-shafts, orthostats, 1 sarcophagus lid, 1 statue</td>
<td>6</td>
<td>N/A</td>
</tr>
<tr>
<td>33. Tremiti Islands</td>
<td>Italy</td>
<td>I B.C.-I A.D.</td>
<td>N/A</td>
<td>Marble slabs and blocks</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>(UW Site) Punta Stilo</td>
<td>Italy</td>
<td>Fifth B.C. (Syracuse)</td>
<td>Limestone</td>
<td>93 blocks, 2 column bases, 40 columns</td>
<td>3.5-6</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Fig. 47. Marble shipwrecks in the Mediterranean.
The numbers refer to the shipwrecks described in Table 18. (Map: D. Bartoli).
Even with the aforementioned limitations, a statistical approach to the data in Tables 19-20 yields interesting results. First of all, from an analysis of the relationship between the specific quarries of shipwrecked marble cargoes and the countries where those shipwrecks are found, a clear pattern emerges. While most of the identifiable marble was extracted in Asia Minor (39%) and Greece (33%), the marble cargoes discovered in Italy, France, and Croatia represent 73% of the total number of shipwrecked stone carriers. There is a clear pattern of stone leaving the East and arriving in the West in massive quantities. No western marble carriers carrying, for instance, Luna marble blocks have ever been discovered in eastern waters. Therefore, the marble shipwrecks from Croton seem to illustrate a trend in which the East (mostly Turkey and Greece) was supplying the West with high-quality stone. Italy, with 58% of the total shipments, seems to have attracted most of the eastern marble exports, followed by France (12%) and Croatia (3%).

Table 19. Percentages of known quarries of the 18 shipwrecked marble cargoes for which the specific origin of the stone is certain.

<table>
<thead>
<tr>
<th>Provenience Quarry</th>
<th>Shipwrecks #</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Minor</td>
<td>7</td>
<td>39%</td>
</tr>
<tr>
<td>Greece</td>
<td>6</td>
<td>33%</td>
</tr>
<tr>
<td>Italy</td>
<td>3</td>
<td>17%</td>
</tr>
<tr>
<td>North Africa</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Table 20. Percentages of shipwrecked marble carriers discovered in the Mediterranean, arranged by country.

<table>
<thead>
<tr>
<th>Country of Discovery</th>
<th>Shipwrecks #</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>19</td>
<td>58%</td>
</tr>
<tr>
<td>France</td>
<td>4</td>
<td>12%</td>
</tr>
<tr>
<td>Turkey</td>
<td>4</td>
<td>12%</td>
</tr>
<tr>
<td>Greece</td>
<td>3</td>
<td>9%</td>
</tr>
<tr>
<td>Croatia</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Intern. Waters</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Tunisia</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Another result of this analysis deals with the chronological confines of marble exports. As seen in Table 21, there are no cargoes that predate the first century B.C. (with the possible exception of the Kızılburun wreck), and no known cargoes after the sixth century A.D. Moreover, the marble carriers lost in the third century A.D. represent 40% of the total. When combined with other carriers of the first and second centuries A.D., that number jumps to a staggering 70%, suggesting that the maritime marble trade was primarily a phenomenon of the Roman Empire.

It is evident that at the peak of the Roman Empire there was a veritable explosion in the trade of marble never before seen on such a scale, and not seen again in the following centuries. In the second and third centuries A.D. the Mediterranean basin had become a pacified, united Roman lake, and the safety of sea lanes made long-distance trade economically feasible. The *pax Romana* had created a world in which it was cheaper to transport grain by sea “from one end of the Mediterranean to the other.
Table 21. Percentage of marble carriers lost at sea, listed in chronological order.

<table>
<thead>
<tr>
<th>Shipwrecks' Date</th>
<th>Shipwrecks #</th>
<th>Percentage #</th>
</tr>
</thead>
<tbody>
<tr>
<td>I cent. B.C.</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>I cent. A.D.</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>II cent. A.D.</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>III cent. A.D.</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>IV-VI cent. A.D.</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

than to carry it a mere 75 miles by road."\textsuperscript{290} The trade in stone presumably followed a similar pattern. It may be that the high number of shipwrecked marble carriers dating to the third century A.D. reflect a zenith of long-distance trade in stone.\textsuperscript{291} After the Roman Empire disintegrated in the fifth century A.D., the system essentially ceased to exist, at least in the West.

Working from the available archaeological evidence it can also be deduced that the typical cargo of a \textit{navis lapidaria} was, on average, lighter than 100 tons (43%), and occasionally between 100 and 200 tons (38%). Heavier cargoes like those at Isola delle Correnti and Punta Scifo B, are quite uncommon, at least in the archaeological record, underscoring the fact that literary testimonia focus on the exceptions and not the rule (Table 22). An analysis of the marble cargoes still on the seafloor, suggests that most of the hulls were 25 – 35 m long and 8 – 12 m in beam, on average, but this remains a rough estimate based on the dispersal of the marble elements that made up the cargoes.

\textsuperscript{290} White 1984, 131.

\textsuperscript{291} See Table 18 on pp. 161-4 for a list of the known marble carriers, and their estimated dates.
Table 22. Tonnage of known marble carriers.

<table>
<thead>
<tr>
<th>Shipwrecks Tonnage</th>
<th>Shipwrecks Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 100</td>
<td>9</td>
<td>43%</td>
</tr>
<tr>
<td>≥ 100-200</td>
<td>8</td>
<td>38%</td>
</tr>
<tr>
<td>≥ 200-300</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>= 350</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The Punta Scifo A Shipwreck: Cargo Parallels

The Punta Scifo A shipwreck represents a unique assemblage of newly-quarried third-century marble objects, rather different from known shipwrecks of the same period. The most common cargoes of similar date are indeed composed of large marble blocks, column shafts, and statue pedestals, but never of artifacts such as labra, decorated pedestals, statuettes, and candelabra. The only ship that bears some resemblance to the cargo of Punta Scifo A is the large navis lapidaria that sank 5 km off the coast of Mahdia, Tunisia, between 90 and 60 B.C. Even though the Mahdia shipwreck had on board only finished marble items, and is much earlier in date, the two sites share some similarities.

The Mahdia ship, with an estimated cargo of 300 tons and a hull 40.6 m long and 13.8 m in beam, was large for its time (early first century B.C.).\(^{292}\) For overall dimensions, it may be compared with the mid-first-century B.C. amphora carrier at Madrague de Giens.

\(^{292}\) Höckmann 1994, 59.
The Punta Scifo A shipwreck had both a lighter cargo (ca. 200 tons of marble), and smaller overall dimensions: it was about 30 m long, and 10 m wide. The Mahdia wreck’s 70 column shafts and 45 capitals and bases of Pentelic marble are completely finished, not rough-hewn as at Punta Scifo A.

The smaller artifacts of the ship's secondary cargo, however, show remarkable similarities. The lions’ paws visible at the four corners of the stands from Punta Scifo A have close parallels with in the lions’ paws decorating the supports of the candelabra found at Mahdia. Furthermore, both ships transported adjustable bronze lamp stands supported by a three-footed base with lion’s paws; five candelabra were discovered at Mahdia, and one at Punta Scifo A. Finally, the small sculptural group representing Eros and Psyche found at Punta Scifo recalls the statuette of a winged Eros from Mahdia.

The Marble Shipwrecks off Croton and Quarry Provenience

The last topic to review, before concluding this study of the Punta Scifo A wreck site, is an analysis of the quarries that produced the marbles artifacts the ship had on board. The Roman world knew a large number of marble types, far more than the 19 mentioned in Diocletian’s Edict. The most comprehensive study of marble varieties from Roman times is G. Borghini’s *Marmi Antichi*, which enumerates 132 different qualities of white and colored stones. The same quarry could provide more than one variety of marble, and along

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294 Cain and Dräger 1994, 239-57.
296 Söldner 1994, 399-429.
with the major state-owned production centers, there were sites that provided second or third-class building material, which generally circulated unrestricted among surrounding cities. Since the main focus of this chapter is to better contextualize the marble cargo Punta Scifo A, only Proconnesus and Docimium will be examined.

*The Quarries of Proconnesus (Island of Marmara, Turkey)*

The white marble from the island of Proconnesus, in the Sea of Marmara, was one of the best-known, and the most widely-used marbles in the ancient world from the Archaic Age onwards (Fig. 48). Vitruvius writes that in the sixth century B.C. the citizens of Ephesus were planning to build a Temple of Artemis using this particular quality of marble, but suddenly abandoned the idea when a shepherd named Pixodarus discovered local marble quarries.\(^{297}\) Slabs of Proconnesian marble were also used to adorn king Mausolus’ palace in Halicarnassus in the mid-fourth century B.C.\(^{298}\) The eight drums and capital of a monumental Doric column found on the seafloor off Kızılburun (Izmir), Turkey are direct evidence of waterborne trade in Proconnesian marble in the late Hellenistic period.\(^{299}\)

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\(^{297}\) *Vitr. De arch.* 10.2.15.
\(^{298}\) *Vitr. De arch.* 2.8.10.
\(^{299}\) Carlson 2006, 3-10.
Fig. 48. Location of the quarries of white and colored marbles, granites, and porphyries mentioned in the text, in the Roman Empire. The quarries are marked with a red triangle. (Map: D. Bartoli).
From Proconnesus came three different varieties of stone, which, according to the size of the crystals and color, were used for statuary or architecture. The two varieties used primarily for sculpture are intensely white in color, and may have a light bluish hue. Their texture is extremely compact, with fine or medium-fine crystals. The third type, with larger crystals and a darker blue shade, was used in architecture.  

The location of the quarries, situated on the flanks of mountains falling straight into the sea, made Proconnesian marble easily accessible and reduced the cost of overland transportation. Presumably for this reason, Proconnesian marble was listed as the cheapest marble type in Diocletian’s *Edict on Maximum Prices*.  

N. Asgari has done extensive research at the Saraylar quarries, inventorying more than 400 artifacts, the majority consisting of Corinthian capitals, column shafts, and bases. Other artistic exports from Proconnesus include statue pedestals (at least six from the Punta Scifo A shipwreck), grave stelai (Kızılburun), and the “garland sarcophagi” that became extremely popular in the second and third centuries A.D. These were shipped in a semi-finished state, and after arriving at their destination, a series of specialized workshops completed their decoration (Fig. 49a). Similarities with fragments of three different sarcophagi found in 1994 on the seafloor of Capo Piccolo, a few kilometers south of Capo Rizzuto, are noteworthy (Fig. 49b). Forty-eight similar sarcophagi are still visible in the original production center on the island.

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300 Borghini 2001, 252.
304 Corrado, forthcoming.
305 Asgari 1978, 470.
One characteristic that sets Proconnesian production apart from other centers like Docimium and Carystos is the almost total lack of inscriptions. Only five quarry-marks have been recorded, compared with ca. 350 inscriptions found at Docimium.\footnote{Asgari 1990, 108.}

Fig. 49: (a) To the left a typical Proconnesian sarcophagus with garlands, imported to Rome in a half-finished state; its decoration was never completed. (Museo Nazionale Romano) (b) To the right fragments of a sarcophagus with garlands, of probable Proconnesian origin, from the sea off Capo Piccolo Combined length: 1.95 m; height: 1.18 m. (Photos: D. Bartoli).

Considering that only the most expensive, colored marbles (Docimian, \textit{africano}, \textit{giallo antico}, \textit{cipollino}, \textit{portasanta}) and the white marbles of Paros were marked, Pensabene suggests that such expensive marbles were inventoried because they represented a fiscal reserve of the state, while the others were left unmarked.\footnote{Pensabene 2002a, 19.}

According to Dodge’s distribution study, those cities in the western Mediterranean where Proconnesian blocks are documented include Rome and Ostia, Carthage, Lepcis.
Magna, and Cyrene in northern Africa.\textsuperscript{308} This information greatly restricts the final destination of the Punta Scifo A’s cargo to a few candidate cities. As stated on pp. 155-7, the Thermae Antoninianae or a similar thermal complex might represent a possible final destination of the cargo shipwrecked at Punta Scifo A. Docimian marble was used in the baths, where archaeologists have uncovered a block, dating to A.D. 206 and carry the same “COM” inscription that appears at Punta Scifo A. Moreover, the 13 \textit{labra} are likely to have been designed for use in public baths and the lead seals that Orsi saw designate quarried items belonging to the emperors. Therefore, the Punta Scifo A shipwreck may represent the first archaeological evidence to connect quarried marbles to their destination, a rare example of the a very major step in the process of supply, transportation, and final use of the quarried material.

\textit{The Quarries of Docimium (Iscehisar, Turkey)}

The ancient quarries of Docimium are located in modern Iscehisar (Turkey), and have been surveyed in recent years by M. Waelkens, while in 1987 J.C. Fant studied the inscriptions visible on items abandoned there (fig. 48).\textsuperscript{309}

Docimian stone is white, with veins that range in color from light purple to almost black. The resulting reddish shade gave the marble its name during the Italian Renaissance, \textit{pavonazzetto} meaning purple-red. In antiquity, it was named in different ways: Docimian,

\textsuperscript{308} Dodge 1988, 224, fig. 8.
Synnadic, or Phrygian, which reflected the quarry’s geographical location. Docimium was the nearest village to the marble veins, Synnada the city where the Romans established the imperial administration center (modern Subut), and Phrygia the entire surrounding region.\footnote{Borghini 2001, 264.}

Docimian marble was highly valued in Rome, both for architectural uses such as column shafts, floors, wall revetments, and for sculptures. The violet shade of the stone could be used to imitate stains of blood as in the body of Marsyas hanged in a tree (Rome, Palazzo dei Conservatori), or the nuances of a colored drape adorning the bust of a woman whose head was skillfully carved from a white portion of the same block (Rome, Palazzo dei Conservatori).\footnote{Borghini 2001, 265, fig. 109c.}

_Pavonazzetto_ was not the only marble quarried at Docimium. Another important variety is the white Synnadic, “a shining white marble that was largely used for sarcophagi of second and third centuries A.D., statues, and copies of the great masterpieces of classical art.”\footnote{Pensabene 2002b, 203-7.} The Attic bases and Ionic capitals visible at the Nautical Museum of Capo Colonna and in Square “Antonio Caputi” were carved from this variety of stone.

A complex series of inscriptions, some long and extremely detailed, were in use at the Docimian quarries, but only on the artifacts made of _pavonazzetto_ (for parallels from Punta Scifo A, see COL 1, BLC 6, BLC 8). It is possible that the white Synnadic marble enjoyed a more commercial use, and the inscriptions reflect the necessity of inventorying only the items that belonged to the Imperial patrimony. The large number of sarcophagi

\footnote{Borghini 2001, 264.}
\footnote{Borghini 2001, 265, fig. 109c.}
\footnote{Pensabene 2002b, 203-7.}
and statues indicates that there was a private market for white Synnadic marble, and it is possible that the workshops did not deem it necessary to keep track of every single item produced.\(^\text{313}\) The distribution of *pavonazzetto* in the West is noticeably broad: imported not only to Rome, Ostia, and the major cities along the North African shore, it also reached southern Spain and southern England.\(^\text{314}\)

**Land and River Transportation: Two Possible Routes for Docimian Marble Exports**

A cursory look at a map of Asia Minor is sufficient to appreciate why the burden of transportation influenced the price of Docimian marble. Synnada and the nearby quarries lay in the heart of Phrygia, hundreds of kilometers away from the sea (Fig. 50). While the Meander and Sangarius rivers may have been used to send quarried items downstream to the Black Sea or Mediterranean Sea, there was still a long stretch of road to be covered before reaching navigable points of departure.

J.B. Ward Perkins and P. Pensabene have hypothesized about where Docimian marble was loaded for transport by sea. Nicomedia, strategically located where the land routes of central Asia Minor converge with the sea lanes reaching the Aegean and Black Seas, was, according to Ward-Perkins, “to Anatolia what Constantinople was to Europe. […] Any organization engaged in exporting the produce of Bithynia would have been almost bound to gravitate to Nicomedia.”\(^\text{315}\) Ward-Perkins maintains that, even if the

\(^{313}\) Pensabene 2002b, 206-7.

\(^{314}\) Dodge 1988, 222, fig. 7.

\(^{315}\) Ward-Perkins 1992b, 65.
Fig. 50. White marble quarries in Asia Minor. Cities are marked with a circle, quarries with a star. (Map after Pensabene 1978, 112).
Sangarius River is at present a little stream that flows up to Gordion, ca. 160 km away from Docimium, it is possible that in antiquity it was remarkably larger, with a more constant water flow that reached the Sea of Marmara. Therefore, quarried items would have been brought by road to the closest loading spot available. Then, they would have been floated downstream on rafts and on barges until they reached the Sea of Marmara. Ward-Perkins cites a well-known letter from Pliny the Younger to Trajan in A.D. 110, asking permission to dig a canal linking Nicomedia to the lake of Sapanca lake in order to make it easier to transport by ship “fine stone (marmora), farm products, wood, and timber for building.” While in Latin the word marmor does not represent only what we call marble today, but rather all high-quality stone, Ward-Perkins believes that Pliny is referring here to the production of various types of stone from the Docimian quarries. The same letter also implies that using the Sangarius River meant loading and unloading the marble items twice: from Docimium to the first loading spot, and from the lake to Nicomedia, instead of letting them reach the mouth of the Sangarius in the Black Sea, loading them onto a ship, and sailing across the Bosphorus.

Pensabene, on the other hand, sees the harbors of Ephesus or Miletus a more likely alternative. He reaches this conclusion from an inscription found at Dorylaeum (modern Iscehisar in Turkey), which mentions a guild of muleteers who transported marble from Docimium to the Roman administrative center of Synnada, about 45 km to the south. Following this route, it is difficult to imagine that once in Synnada a shipment would have been sent back past Docimium to the Sangarius River. Apamea, which was accessible

317 Pensabene 1978a, 113.
only by road, was the next most probable destination, and from there heavy stone loads would have eventually reached the Meander, having covered nearly 150 km over land. Because the marble quarries of Laodicea and Aphrodisias were close to the Meander (Fig. 50), Ephesus or Miletus could have served as a redistribution hub for products from different quarries.\textsuperscript{318} Pensabene’s theory is supported by H. Dodge, who notes that an edict of the second century A.D. suggests Ephesus as a port of departure for marble items.\textsuperscript{319} L. Antoninus Balbus, proconsul for Asia, ordered “importers of wood and marble not to leave them or saw them up on the wharves.”\textsuperscript{320} From a nautical perspective, these cities are also much more convenient for points of departure to the West, since they face the Cycladic Islands and Greece: departing from one of these harbors would have saved some 500 km of navigation through the Dardanelles and along the rocky Turkish coastline.

Even without knowing for sure what the final collecting hub was, the description given so far explains why the cost of Docimian marble was so much higher compared to Proconnesian: overland transportation significantly increased its final cost.\textsuperscript{321} This might help explain why the Punta Scifo A shipwreck's artifacts were exported in a semi-finished state. Given the high cost of transportation, it made good economic sense to add value to the objects by working them at the quarries, simultaneously lowering the weight of material that had to be carried across kilometers of difficult terrain.

\textsuperscript{318} Pensabene 1978a, 113.  
\textsuperscript{321} Greene 1986, 39-40.
The Punta Scifo A shipwreck represents direct evidence of what is arguably one of the greatest technological achievements of the Roman Empire at its peak: merchantmen that moved enormous quantities of stone from one end of the Mediterranean to the other. The use of foreign marbles for architectural purposes was widespread in the ancient world centuries before the Romans began importing it to Italy, but one of the most remarkable achievements of the Empire was the affordability and accessibility that resulted from the safety of sea trade and the unification of the Mediterranean. The relatively low cost of moving tons of exotic marble by sea on naves lapidariae similar to the five vessels that sank off the shores of Croton made possible the embellishment of numerous public and private buildings.

Punta Scifo A was only one of the five ships wrecked south of Croton, named Punta Scifo B, Punta Cicala, Capo Cimiti, and Capo Bianco. The ship itself was ca. 30 m long, 10 m wide, had a strong hull with two roes of mortise-and-tenon joints, and carried a load of ca. 200 tons of newly-quarried objects. It was lost in the sea south of Croton in the early third century A.D., at a time when the marble trade reached its apogee under the Empire, as suggested in part by the high number of lost merchantmen from this period. Such ships brought an unprecedented amount of fine eastern stone to the Italian market, where the ruling elite eagerly adopted it in a public show of wealth, power, artistic good taste, and social prestige.
The merchantman, loaded with a marble cargo, steered a direct course from Asia Minor: all the items carried on board came from the quarries of Proconnesus and Docimium. The location of these quarries, near the coastline in the case of Proconnesus or far from it in the case of Docimium, may explain the differences in their cost: 40 and 200 denarii respectively, according to Diocletian’s *Edict on Maximum Prices* (A.D. 301). The most likely point of departure was either Epheus or Miletus - each is close to the estuary of the Meander River, which helped reducing the cost and difficulty of transportation.

While sailing toward the Strait of Messina, it is likely that a *Grecale* or *Levante* storm broke, making it impossible for the helmsman to steer the ship to safety in the harbor of Croton. Instead, he was forced to follow a straight course, past Capo Colonna, and look for shelter in the protected bay of Punta Scifo. Perhaps it did not take long, however, for the unpredictable winds to change direction and become a destructive *Scirocco* storm. Since the entire coastline is totally unprotected to the south, there was no way for the crew to save their ship. In this regard, it is interesting that both the Punta Scifo A and the Punta Scifo B ships sank with their ends facing the coastline, as if they were being driven ashore when their keels were shattered on the rocks close to the surface. The Punta Cicala wreck lies with its bow oriented toward the bay of Punta Scifo; a destination it never reached because of the treacherous rocks of Punta Cicala’s promontory.

Where the Punta Scifo A merchantman was destined remains unknown, although Rome appears to be a likely candidate. Lead seals found on several marble artifacts are usually associated with Imperial ownership. The high cost of Docimian marble, coupled with the fact that the artifacts appear to have been quarried in an effort to fulfill a single
building project, lead me to propose that the shipment may have been destined for the
Baths of Caracalla in Rome, or a similar complex.

The marble cargo of the Punta Scifo A shipwreck was assembled in a well-planned
and organized manner. Based on research undertaken on original archival documents as
well as on items still visible in Croton and Corazzo, it has been possible to demonstrate
that 16 column shafts were carried on board. All of these had lengths in even multiples of
Roman feet. The fact that odd numbers are missing and that the column shafts appear to
increase in length according to a predefined set of dimensions suggests a certain degree of
standardization in production. Architects and quarry-workers, separated by thousands of
kilometers, operated according to a simple,
well-organized, and schematic plan that minimized dimensional misunderstandings
through standardization of measurements. It is possible that these 16 column shafts may
have been destined to adorn a two-level façade for a building similar to the Basilica in the
Forum of Pompeii. A remarkable degree of standardization is also present in the 13 basins
found on board, 12 of which can be classified into two groups of 3 ½ and 7 Roman feet in
diameter. They may have been supported by the 15 pedestals decorated with lions’ paws.
One basin and one pedestal were completely finished, probably intended to serve as models
for the sculptors at their ultimate destination; the quarry-coat left on the edges of the
unfinished artifacts helped to protect them during transport.

Based on similarities with wooden and ivory furniture from villas at Pompeii and
Herculaneum, it seems likely that both the basins and the pedestals decorated with lions’
paws were meant to decorate the inner rooms of a contemporaneous Roman building. The
absence of the four “anchoring feet” used to fix similar artifacts in the soil suggests that they were meant to be used on a paved surface.

Further archaeological investigation may make it possible to demonstrate that the Punta Scifo A and B shipwrecks were part of a single convoy. What is known of their hulls indicates that each had two rows of mortise-and-tenon-joined planks, and that the bottom planking was 8 cm thick. At least two Kapitän 2 amphoras were on board each vessel, along with two ladles decorated with swans’ heads. Unfortunately, no analyses have been conducted on the marble cargo from the Punta Scifo B site; if it were revealed to be Proconnesian, this would provide additional evidence for a common origin for the two merchantmen, and a single shipment for a building enterprise on an Imperial scale.

Overall, the five marble carriers add a new dimension to the maritime history of Croton and the Roman marble trade. It is clear that both the city’s harbor and the promontories and natural bays to the south represented important ports of call for ships and sailors, even at a time when the city itself was in apparent economic decline. While the importance of these shipwrecks for the study of the Roman marble trade is obvious, it is unfortunate that so little has been published since 1908. This research aims to underscore that even 100 years after the original discoveries, future research can illuminate the history of Croton, and that of the Roman marble trade itself, of which the five lost naves lapidariae form an important chapter.
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Roman Earthquake in the Crotone Area (Ionian Calabria, Southern Italy):


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Specific Gravity of General Materials Table. 2008. 


APPENDIX 1

CATALOG OF ARTIFACTS FROM THE PUNTA SCIFO A SHIPWRECK

(Items recorded by the author as of September 1, 2007)

LAB 1. Labrum.

Present location: Prefecture, Tarentum.\textsuperscript{320}

Description: The basin is broken into two parts and a small portion of the bowl is missing where the fracture ends, close to the rim. Contrary to LAB 2 CM and LAB 3 CM, the closest parallels in size, the rim is not flat and unfinished, but has been rounded off, except for two separate spots where it forms an angle with the inner wall.

Marble type: Pavonazzeto.\textsuperscript{321}

Diameter (external): 2.10 m
Diameter (internal): 1.70 m
Height: 0.90 m
Notes: 8 bosses under the rim, opposite each other

Bibliography: Orsi 1911, 119, fig. 101; Pensabene 1978, 114, fig.2B; Pensabene 2002a, 36-7; Ambrogi 2005, 257-8.

\textsuperscript{320} This is the only artifact the author could not see in person. Its dimensions and state of preservation are inferred from the descriptions of P. Pensabene in 1978 and of A. Ambrogi in 2005.
\textsuperscript{321} Pensabene 1978, 114.
LAB 2. Labrum.

**Present location:** Archaeological Museum of Croton, on a small flowerbed on the right side of the entrance.

**Description:** Well preserved, with two breaks in the rim, almost at opposite ends to one another. Preserved portion: 100%.

**Marble type:** *Pavonazzetto*.\(^{322}\)

- Diameter (external): 2.25 m
- Diameter (internal): 1.83 m
- Height: 1.05 m
- Diameter (base): ca. 0.60 m
- Rim thickness: 0.23 m
- Notes: 8 bosses under the rim, opposite each other

**Bibliography:** Orsi 1911, 119; Pensabene 1978, 106-7; Pensabene 2002a, 36-7.

\(^{322}\) Pensabene 1978, 114.
LAB 3. Labrum.

Present location: Archaeological Museum of Croton, on a small flowerbed on the left side of the entrance.

Description: Well preserved, with three breaks along the rim, and two cracks extending from the rim almost to the middle of the basin. Preserved portion: 100%.

Marble type: *Pavonazzetto.*[^323]

Diameter (external): 2.36 m  
Diameter (internal): 1.88 m  
Height: 1.04 m  
Diameter (base): ca. 0.58 m  
Rim thickness: 0.23 m  
Notes: 8 bosses under the rim, opposite each other

Bibliography: Orsi 1911, 119, Fig. 102; Pensabene 1978, 114; Pensabene 2002a, 36-7; Ambrogi 2005, 256-7.

LAB 4. Labrum.

Present location: Naval Museum, Capo Colonna.

Description: Part of the basin is broken and missing, and the basin has one minor break in the rim. Compared to LAB 2 and 3, this labrum has a higher degree of finish, the surface is better polished, the rim has been smoothed and has a gentle outward curvature, rather than the flat rim of LAB 2 and LAB 3. There are few encrustations or signs of erosion, and the original surface is well preserved. Preserved portion: 85%.

Marble type: Pavonazzetto.

Diameter (external): 1.02 m
Height: 0.49 m
Diameter (base): ca. 0.26 m
Notes: 6 extant bosses under the rim, opposite each other, with two absent in the missing section. Eight bosses originally.
Notes: Discovered in 1983

Bibliography: Pensabene 2002a, 37.
LAB 5. Labrum.

**Present location:** Naval Museum, Capo Colonna.

**Description:** Only the bottom and pedestal have survived. The *labrum* when complete was probably 2.10 m in diameter. The surface is well polished, and there are few signs of marine encrustation. Preserved portion: 40%.

**Marble type:** *Pavonazzetto*.

Diameter (external, surviving): 1.50 m  
Height: Indeterminate  
Diameter (base): ca. 0.45 m  
Notes: Discovered on May 3, 1915? It may be part of the labrum broken in 13 fragments.

**Bibliography:** Report 03 May, 1915; Pensabene 2002a, 37.

**Present location:** Naval Museum, Capo Colonna.

**Description:** Only part of the bottom and pedestal survive. It is heavily encrusted and shows advanced signs of erosion. It is probable that, when complete, the *labrum* was 2.10 m in diameter. Preserved portion: 30%.

**Marble type:** *Pavonazzetto.*

Diameter (external, surviving): 1.50 m  
Height: Indeterminate  
Diameter (base): ca. 0.47 m  
Notes: Discovered on May 3, 1915

**Bibliography:** Report May 3, 1915; Pensabene 2002a, 37.
LAB 7. Labrum.

**Present location:** Caputi Square, Croton.

**Description:** The bottom and pedestal survive in a good state of preservation, with few signs of marine encrustation, though the rim is missing. Estimated original diameter is 2.10 m. Preserved portion: 50%.

**Marble type:** Pavonazzetto.

Diameter (external, surviving): 1.70 m  
Height: > 0.78 m  
Diameter (base): 0.67  
Notes: Discovered on May 2, 1915

**Bibliography:** Report May 2, 1915; Pensabene 2002a, 37.
HPL 1. High pedestal stand with lions' paws.

Present location: Naval Museum, Capo Colonna.

Description: This stand, possibly a support for a labrum (but other uses cannot be excluded), is in extremely good state of preservation. Only a few marine encrustations appear on its surface. The lions’ paws are not completely finished: a thick ring has been left on their upper surface and the toes are not completely carved.

Marble type: Pavonazzetto.

Width: 0.664 m; Length: 0.664 m (lower level)
Width: 0.590 m; Length: 0.590 m (upper level)
Height: 0.59 m
Diameter: 0.41 m
Notes: Greek inscription “ΕΛ” on its upper surface. Discovered on May 2, 1915.

Bibliography: Report May 2, 1915; Pensabene 2002a, 37.
HPL 2. High pedestal stand with lions' paws.

Present location: Naval Museum, Capo Colonna.

Description: This stand, possibly a support for a labrum (but other uses can not be excluded), is slightly shorter and larger in diameter than HPL 1 CC. It is in good state of preservation, even if the surface seems to be more eroded than that of HPL 1 CC. The lions’ paws are not completely finished: a thick ring has been left on their upper surface, and the toes are not carved completely.

Marble type: Pavonazzetto.

Width: 0.765 m; Length: 0.765 m (lower level)
Width: 0.687 m; Length: 0.690 m (upper level)
Height: 0.51 m
Diameter: 0.49 m
Notes: Discovered on May 3, 1915.

Bibliography: Report May 3, 1915; Orsi 1921, 494; Pensabene 1978, 114, fig. 5; Pensabene 2002a, 37; Ambrogi 2005, 356-7.
HPL 3. High pedestal stand with lions' paws.

**Present location:** Naval Museum, Capo Colonna.

**Description:** This stand, possibly a support for a *labrum*, is similar in dimensions to HPL 1. It is in good state of preservation, even if heavily eroded on one side of the lower level. The lions’ paws are totally finished: the ring which is present in HPL 1 and HPL 2 has been removed, and the toes are well-defined.

**Marble type:** *Pavonazzetto*.

- Width: 0.766 m; Length: 0.766 m (lower level)
- Width: 0.673 m; Length: 0.673 m (upper level)
- Height: 0.60 m
- Diameter: 0.445 m

**Notes:** Discovered on May 3, 1915.

**Bibliography:** Report 3 May, 1915; Orsi 1921, 494; Pensabene 1978, 108; Pensabene 2002a, 37.
HPL 4. High pedestal stand with lions' paws.

**Present location:** Caputi Square, Croton.

**Description:** This stand, possibly a support for a labrum, is similar in dimensions to HPL 1 and HPL 3. Its state of preservation is mediocre, due to heavy erosion, and marine encrustation covering part of its surface. It is difficult to determine if the lions’ paws are finished or not.

**Marble type:** Pavonazzetto.

Width: 0.60 m; Length: 0.59 m (lower level)
Width: 0.55 m; Length: 0.50 (upper level)
Height (total): 0.65 m
Height (base): 0.18 m (0.06 + 0.09 + 0.03 m)
Diameter: 0.40 m
Notes: Discovered on May 3, 1915.

**Bibliography:** Report 3 May, 1915; Orsi 1921, 494; Pensabene 1978, 108; Pensabene 2002a, 37.
HPL 5. High pedestal stand with lions' paws.

Present location: Caputi Square, Croton.

Description: This stand, possibly a support for a *labrum*, is similar in dimensions to HPL 1, HPL 3, and HPL 4. Its state of conservation is poor and the upper projecting disc is almost completely missing.

Marble type: *Pavonazzetto*.

Width: 0.60 m; Length: 0.67 m (lower level)
Width: 0.55 m; Length: Indeterminate (upper level)
Height: 0.55 m
Diameter: Indeterminate
Notes: Discovered on May 3, 1915.

HPL 6. High pedestal stand with lions' paws.

Present location: Caputi Square, Croton.

Description: Like HPL 5 SC, this stand is also in a poor state of preservation and is of similar dimensions to HPL 1, HPL 3, and HPL 4.

Marble type: *Pavonazzetto*.

Width: 0.51 m; Length: 0.45 m (lower level)
Height: 0.55 m
Diameter: > 0.20 m (the disk is almost completely eroded)
Notes: Discovered in 1983.

Bibliography: Pensabene 2002a, 37.
MPL 1. Medium pedestal stand with lions' paws.

Present location: Caputi Square, Croton.

Description: This stand, which according to P. Pensabene vaguely resembles an Ionic base,\(^\text{324}\) presents a torus-like profile terminating in a disc outlined by a thin rim. A square base decorated with four lions’ paws at its corners supports the torus. The lions’ paws appear to be only roughly shaped, with the protective ring still in place. The surface is only lightly eroded and the state of preservation is good. One corner is broken and missing.

Marble type: *Pavonazzetto*.\(^\text{325}\)

Width: 0.95 m; Length: 0.95 m (lower level)
Width: 0.85 m; Length: 0.85 m (upper level)
Height (total): 0.40 m
Height (pedestal): 0.22 m (0.06 + 0.13 + 0.03 m)
Diameter: 0.61 m
Notes: One corner is broken. Discovered on May 2, 1915.

Bibliography: Report May 2, 1915; Orsi 1921, 494; Pensabene 1978, 114-5, fig. 6; Pensabene 2002a, 37; Ambrogi 2005, 356.

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\(^{324}\)Pensabene 1978, 115.

\(^{325}\)Pensabene 1978, 115.
MPL 2. Medium pedestal stand with lions' paws.

Present location: Caputi Square, Croton.

Description: Similar to MPL 1 but in a worse state of preservation, this pedestal presents a torus-like profile terminating in a disc outlined by a thin rim. A square base decorated with four lions’ paws at its corners supports the torus. The lions’ paws appear to be only roughly carved. The surface is heavily eroded and the state of preservation mediocre.

Marble type: *Pavonazzetto.*\(^{326}\)

Width: 0.90 m; Length: 0.90 m (lower level)
Width: 0.82 m; Length: 0.82 m (upper level)
Height (total): 0.42 m
Height (base): 0.23 m (0.07 + 0.13 + 0.02 m)
Diameter: 0.59 m
Notes: Discovered on May 2, 1915.


\(^{326}\) Pensabene 1978, 108.
MPL 3. Medium pedestal stand with lions' paws.

Present location: Caputi Square, Croton.

Description: In a poor state of preservation, this pedestal’s surface is heavily eroded; the torus and the lions’ paws have completely eroded.

Marble type: Pavonazzetto.\textsuperscript{327}

Width: 0.98 m; Length: 0.95 m (lower level)
Height: 0.42 m
Height Base: 0.10 m
Diameter: Indeterminate
Notes: Discovered on May 2, 1915.


\textsuperscript{327} Pensabene 1978, 108.
LPL 1. Low pedestal stand with lions' paws.

Present location: Naval Museum, Capo Colonna.

Description: This artifact is extremely well preserved, with only one lion’s paw partially eroded. Light encrustation covers the surface. Its shape is reminiscent of the lower pedestals MPL 1 and MPL 2, but the torus has almost disappeared, and the square base and the diameter are greater. The Greek inscription “ΣΑΤΟΠ” has been carved on the edge of the upper disc.

Marble type: Pavonazzetto.\(^{328}\)

Width: 1.18 m; Length: 1.17 m (lower level)
Width: 0.97 m; Length: 0.97 m (upper level)
Height: 0.38 m
Diameter: 0.68 m
Notes: Discovered on May 2, 1915.


\(^{328}\) Pensabene 1978, 108.
LPL 2. Low pedestal stand with lions' paws.

Present location: Naval Museum, Capo Colonna.

Description: This artifact is well preserved, even though it exhibits some marine erosion and is mildly encrusted. Its shape is identical to that of MPL 1. The Greek letter “H” has been carved on the upper disc, and a bent nail, probably of copper and presumably from the ship’s hull, is concreted to one of its edges.

Marble type: *Pavonazzetto.*

Width: 1.15 m; Length: 1.15 m (lower level)
Width: 0.92 m; Length: 0.94 m (upper level)
Height: 0.38 m
Diameter: 0.68 m
Nail’s length: 0.10 m
Notes: Discovered on May 2, 1915.


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Pensabene 1978, 108.
COL 1. Column shaft.

**Present location:** Naval Museum, Capo Colonna.

**Description:** The column-shaft is broken into two pieces. The protective collar is visible at the lower end, but missing from the opposite extremity. The artifact is well preserved. The upper extremity of the smaller section is heavily eroded. The following inscription appears on the preserved end:

```
LOC II
B II COM I
SEVEROEVICTO
RINO COS OFF
MODIANA C/
IVLI //A
```

Due to clear signs of recent breakage, it is possible to deduce that this column shaft was broken into three pieces at or after the time of discovery, of which the upper section is missing. In Orsi’s 1911 article a column shaft, bearing the same identical inscription at the base, but 4.20 m long, is mentioned. It is highly likely that this was the column he saw, and that an upper portion, of 1.06 meters, was lost. A rectangular cartouche carved to host a lost lead seal, measuring 0.09 m x 0.015 m, is visible on the upper end of the column.

**Marble type:** *Pavonazzetto.*

Length: 2.22 m + 0.92 m = 3.14 m (probably 4.20 m when intact).
Diameter (at the base with inscription): 0.57 m
Diameter (long stump, at the break): 0.49 m
Diameter (beginning short stump, at the break): 0.50 m
Diameter (end short stump, at the break): 0.43 m
Height (protective ring): 0.26 m

Notes: Discovered in 1909.

**Bibliography:** Orsi 1911, 16, fig. 103; Pensabene 1978, 115, fig. 7; Pensabene 2002a, 37.

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The column shaft with inscription mentioning Severus and Victorinus at its base, as it appeared in December 2005 in the courtyard of the NavalMuseum of Capo Colonna, Croton. Notice the reinforcement collar at the upper rim for protecting the shaft during transportation. (Photo: D. Bartoli)

The Roman quarry inscription described by Paolo Orsi in 1911. (Photo: D. Bartoli)
COL 2. Column shaft.

**Present location:** Caputi Square, Croton.

**Description:** The column shaft is broken at its upper extremity, heavily eroded, and covered with a thick layer of marine encrustation. Since it stands upright in the ground, it is not possible to measure its exact length, nor determine if the lower end is intact and is provided with a protective collar.

**Marble type:** Unknown.

Length: 4.84 m
Diameter: 0.65 m
Diameter body: 0.72 m
Notes: Discovered May 2, 1915.

**Bibliography:** Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.

Col 3A. Column shaft, fragment.

**Present location:** Caputi Square, Croton.

**Description:** The column shaft is broken at its upper extremity, heavily eroded, and it stands upright in the ground. It is therefore not possible to determine its total length, or if the lower end is intact and has a protective collar.

**Marble type:** Unknown.

Length: 3.06 m
Diameter: 0.58 m
Diameter body: 0.73 m
Notes: Discovered May 2, 1915.

**Bibliography:** Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.
COL 3B. Column shaft, fragment.

**Present location:** Caputi Square, Croton.

**Description:** This small fragment of a column shaft is heavily eroded and covered with thick marine encrustation. Since it stands upright in the ground, it is not possible to determine its total length, or if the lower end is intact and has a protective collar.

**Marble type:** Unknown.

Length: more than 1.30 m  
Diameter: 0.54 m  
Notes: Discovered May 2, 1915.

**Bibliography:** Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.

COL 3C. Column shaft, fragment.

**Present location:** Caputi Square, Croton.

**Description:** This is a small fragment of a column-shaft, which is heavily corroded, and covered with thick marine encrustations.

**Marble type:** Unknown.

Length: 1.53 m\textsuperscript{335}  
Diameter: 0.54\textsuperscript{336}  
Notes: Discovered May 2, 1915.

**Bibliography:** Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.

\textsuperscript{335} Pensabene 2002a, 37.  
\textsuperscript{336} Pensabene 2002a, 37.
Col. 4. Column shaft.

Present location: Caputi Square, Croton.

Description: Part of a fragmentary column shaft, which is heavily eroded and covered with thick marine encrustation. Since it stands upright in the ground, it is not possible to determine its total length, nor if the lower end is intact and has a protective collar.

Marble type: Unknown.

Length: 1.10 m
Diameter: 0.45 m
Notes: Discovered May 2, 1915.
Bibliography: Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.
COL 5. Column shaft.

Present location: Seafloor, Punta Scifo.

Description: The column shaft rests on top of two large boulders, next to BLC 12. It is completely covered with marine growth, making it impossible to determine if collars exist at its extremities or not.

Marble type: Unknown.

Length: ca. 4.30 m
Diameter: ca. 0.58 m

Bibliography: Pensabene 2002a, 37.
COL 6. Column shaft.

Present location: Corazzo

Description: P. Pensabene saw this column-shaft in resort Corazzo, ca. 30 km inland from Croton. The surface appears to be in a poor state of preservation, with signs of marine erosion.

Marble type: *Pavonazzetto*.

Length: 5.82 m\(^{337}\) (Pensabene 2002a)

\[3.44 \text{ m (as seen in 2007, it appears to have broken into three fragments: } 1.64 \text{ + 0.90 + 0.90 m)}\]

Diameter: 0.68 m

Notes: Discovered May 2, 1915.


\(^{337}\) Pensabene 2002a, 37.
STP 1. Statue Pedestal.

Present location: Naval Museum, Capo Colonna.

Description: This artifact, similar in dimensions and state of finish to STP 4, that P. Pensabene saw in 1975 in Corazzo, is in a semi-finished state of execution. The general shape of the statue’s pedestal has been completed, but it is unpolished and bears clear marks of a pointed chisel. There are only mild signs of marine erosion and the item is well preserved. Its base and top are rectangular, while the body is nearly square. A smooth band is present at the top, but not at the base.

Marble type: Proconnesian. 338

Height (total): 1.55 m
Height (base): 0.39 m
Height (body): 0.81 m
Height (top): 0.35 m
Height (band): 0.19 m
Width (base): 0.77 m; Length (base): 0.86 m
Width (body): 0.67 m; Length (body): 0.63 m
Notes: Discovered on May 2, 1915.

Bibliography: Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.

STP 2. Statue Pedestal.

Present location: Naval Museum, Capo Colonna.

Description: This artifact, similar in shape but slightly smaller than STP 1 and STP 4, is semi-finished. The general shape of the statue’s pedestal has been completed, but its surface has not been polished and bears clear marks of a pointed chisel. The base shows heavy signs of marine erosion, while the rest of the pedestal is well preserved. Its base and top are rectangular, and the body is almost square in section. A smooth band is present at the top, but not at the base.

Marble type: Proconnesian.

Height (total): 1.30 m
Height (base): 0.26 m
Height (body): 0.76 m
Height (top): 0.27 m
Height (band): 0.14 m
Width (base): 0.82 m; Length (base): 0.73 m
Width (body): 0.655 m; Length (body): 0.62 m
Notes: Discovered on May 3, 1915.


Present location: Caputi Square, Croton.

Description: This artifact, similar in dimensions and finishing state to STP 1 and STP 4, is semi-finished. The general shape of the pedestal has been completed, but its surface is unpolished and bears clear marks of a pointed chisel. There are almost no signs of marine erosion. Its base and top are rectangular, and the body is almost square in section. A smooth band is present only at the top, which appears to have been roughly worked out in antiquity.

Marble type: Proconnesian.\(^{340}\)

Height (total): 1.42 m  
Height (base): 0.28 m  
Height (body): 0.86 m  
Height (top): 0.28 m  
Height (band): 0.17 m  
Width (base): 0.74 m; Length (base): 0.86 m  
Width (body): 0.58 m; Length (body): 0.70 m  
Notes: Discovered on May 2, 1915.

Bibliography: Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.
STP 4. Statue Pedestal.

**Present location:** Corazzo

**Description:** P. Pensabene saw this artifact in resort Corazzo, ca. 30 km inland from Croton, in 1975. Andrea and Riccardo Bartoli were able to relocate it on August 7, 2007, still in Corazzo, inside the church dedicated to St. Joseph.

The general shape of the statue’s pedestal has been completed, but its surface is unpolished and bears clear marks of a pointed chisel. Its base and top are rectangular, and the body is almost square in section. A smooth band is present at the base, not at the top.

This is a remarkable example of modern reuse of a Roman pedestal for the purpose it was intended: as base for a statue.

**Marble type:** Proconnesian.\(^{341}\)

Height (total): 1.46 m  
Height (base): 0.29 m  
Height (body): 0.88 m  
Height (top): 0.29 m  
Height (band): 0.22 m  
Width (base): 0.82 m; Length (base): 0.87 m  
Width (body): 0.63 m; Length (body): 0.65 m  
Width (top): 0.81 m; Length (top): 0.86 m  
Notes: Discovered on May 2, 1915.

**Bibliography:** Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.

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\(^{341}\) Pensabene 2002, 37.
STP 5. Statue Pedestal.

Present location: Corazzo

Description: This pedestal has been missing since P. Orsi recorded it in 1915. Andrea and Riccardo Bartoli relocated it in resort Corazzo, ca. 30 km inland from Croton, inside the local church dedicated to St. Joseph.

This statue pedestal has been roughed out on only three sides, the fourth left unworked and still showing the rock’s uneven surface. A smooth band is present at the top, but not at the base. As has been the case for STP 4, this artifact has also been reutilized as a base for a modern statue of St. Joseph.

Marble type: Proconnesian.

Height (total): 1.30 m
Height (base): 0.24 m
Height (body): 0.81 m
Height (top): 0.25 m
Height (band): 0.15 m (top)
Width (base): 0.68 m; Length (base): 0.73 m
Width (body): 0.58 m; Length (body): 0.59 m
Width (top): 0.60 m (chipped); Length (top): 0.73 m
Notes: Discovered on May 2, 1915.

Bibliography: Report May 2, 1915; Orsi 1921, 493-4; Pensabene 2002a, 37.
**BLC 1. Block.**

**Present location:** Caputi Square, Croton.

**Description:** A trapezoidal block, with three steps on its upper surface, which are apparent in the photograph. It is covered with a thin layer of marine encrustation.

**Marble type:** *Pavonazzetto.*

Block: Length: 2.61 m  
Width: 1.22 m  
Height: 0.76 m

Step n.1: Length: 0.33 m  
Width: 0.18 m  
Height: 0.13 m

Step n.2: Length: 0.31 m  
Width: 0.16 m  
Height: 0.08 m

Step n.3: Length: 0.34 m  
Width: 0.29 m  
Height: 0.33 m

**Notes:** Discovered on May 2, 1915.

**Bibliography:** Report May 2, 1915; Orsi 1921, 493; Pensabene 2002a, 37.
BLC 2. Block.

Present location: Caputi Square, Croton.

Description: The block is broken into two parts and has three shallow steps on its upper surface. It is covered with a thin layer of marine encrustation.

Marble type: Pavonazzetto.

Length: 3.07 m
Width: 1.44 m
Height: 0.27 m

Notes: Discovered on May 2, 1915.

Bibliography: Report May 2, 1915; Orsi 1921, 493; Pensabene 2002a, 37.
**BLC 3. Block.**

**Present location:** Caputi Square, Croton.

**Description:** The block, which is rectangular in shape, has one shallow step on its upper surface. It is covered with a thin layer of marine encrustation.

**Marble type:** *Pavonazzetto.*

Length: 1.90 m  
Width: 1.58 m  
Height: 0.66 m

**Notes:** Discovered on May 2, 1915.

**Bibliography:** Report May 2, 1915; Orsi 1921, 493; Pensabene 2002a, 37.
**BLC 4. Block.**

Present location: Caputi Square, Croton.

Description: The block, rectangular in shape, is deeply eroded, its surface partially destroyed by marine borers.

Marble type: Proconnesian?

Length: 0.89 m  
Width: 0.75 m  
Height: 1.68 m

Notes: Discovered on May 2, 1915.

Bibliography: Report May 2, 1915; Orsi 1921, 493; Pensabene 2002a, 37.
BLC 5. Block.

**Present location:** Caputi Square, Croton.

**Description:** The block, rectangular in shape, is deeply eroded on one side, well preserved on the other.

**Marble type:** Proconnesian?

Length: 1.0 m  
Width: 0.74 m  
Height: > 2.10 m

Notes: Discovered on May 2, 1915.

**Bibliography:** Report May 2, 1915; Orsi 1921, 493; Pensabene 2002a, 37.
BLC 6. Block.

**Present location:** Last seen in 1975 by P. Pensabene in front of Corazzo's church.

**Description:** Trapezoidal in shape, it has an unspecified number of steps. The following inscription appears on one of the long sides:

```
SVBC
LIBROC
/ / S / /
```

This inscription permitted P. Pensabene to identify this block as the one seen by P. Orsi in 1915 and published in 1921. A second inscription on one of the faces must have been lying on the ground when the blocks were revisited in 1975. This inscription reads:

```
LOCXXXBI // ///
// /// NOERVF // /// //
// /// CAESN // /// //
```

The artifact could not be relocated in 2007.

**Marble type:** *Pavonazzetto.*

Block: Length: 3.12 m  
Width: 1.50 m  
Height: 0.52 m

Notes: Discovered on May 3, 1915.

**Bibliography:** Report May 3, 1915; Orsi 1921, 493-4; Pensabene 1978, 115-6, fig. 9; Pensabene 2002a, 37.

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342 Pensabene 1978, 115.
BLC 7. Block.

Present location: Last seen in 1975 by P. Pensabene in front of Corazzo's church.

Description: The block is rectangular in shape, and apparently heavily eroded. The artifact could not be relocated in 2007.

Marble type: Proconnesian.\footnote{Pensabene 1978, 110.}

Length: 1.97 m
Width: 1.01 m
Height: 0.80 m\footnote{The measurements are taken from Pensabene 1978, 108-10.}

Notes: Discovered on May 3, 1915.

BLC 8

Present location: Corazzo

Description: This block of *pavonazzetto*, which P. Orsi saw in 1915 but was not recorded by P. Pensabene in 1975, is currently located in the courtyard of the church of St. Joseph in Corazzo. The notch used to accommodate a lead cartouche, now lost, is visible on its upper face (indicated by the red arrow). A heavily eroded inscription with the letters “LOCXX” is still partially discernible on its short, vertical side.

Marble type: *Pavonazzetto*.

Block: Length: 1.80 m  
Width: 1.06 m  
Height: 0.68 m

Notes: Discovered on May 3, 1915.


**Present location:** Corazzo

**Description:** Another block of *pavonazzetto*, lost sometime after 1915, was relocated in 2007 in the courtyard of church of St. Joseph in Corazzo. Four rectangular steps are visible on its upper surface; its under surface could not be observed.

**Marble type:** *Pavonazzetto.*

Block: Length: 1.05 m  
Width: ca. 0.90 m  
Height: ca. 0.40 m

**Notes:** Discovered on May 3, 1915.

**Bibliography:** Report May 3, 1915; Orsi 1921, 493-4.
BLC 10. Block.

Present location: Seafloor, Punta Scifo.

Description: The block lies on the seafloor partially covered with sand; the lower extremities seem to have been well preserved under the sand.

Marble type: Unknown.

Length: 1.65 m
Width: > 1.30 m
Height: > 0.30 m

Bibliography: Pensabene 2002a, 37.
BLC 11. Block.

Present location: Seafloor, Punta Scifo.

Description: The block lies on the seafloor, partially under the sand, partially leaning on a large boulder, and completely covered with marine growth.

Marble type: Unknown.

Length: 2.28 m
Width: 2.45 m
Height: 0.62 m

Bibliography: Pensabene 2002a, 37.
BLC 12. Block.

**Present location:** Seafloor, Punta Scifo.

**Description:** The block lies on a rocky seafloor, next to COL 5. Its upper face is covered with a thick layer of eelgrass (*posidonia oceanica*).

**Marble type:** Unknown.

Length: 2.30 m  
Width: 2.20 m  
Height: 0.49 m

**Bibliography:** Pensabene 2002a, 37.
BLC 13. Block.

Present location: Seafloor, Punta Scifo.

Description: The block lies on a rocky seafloor, separated from the other marble elements. Its surface is completely covered with a thick layer of marine growth.

Marble type: Unknown.

Length: 4.65 m
Width: 1.43 m
Height: 0.62 m

Bibliography: Pensabene 2002a, 37.
STA 1. Statuette of Eros and Psyche.

**Present location:** Naval Museum, Capo Colonna.

**Description:** This small sculptural group is well preserved, with few signs of marine encrustation. Eros lacks the head and part of his left arm, Psyche the right arm; Eros once had wings of which only the attachments survive. The base has angular cornices and four protruding square feet.

P. Orsi does not mention this find among the material he catalogued in 1909 and 1915, and it is indeed proven that the sculpture was recovered from the bay of Punta Scifo in 1968 by local fishermen.\(^{345}\) The Marquis Armando Lucifero bought the sculpture and donated it to the Archaeological Museum of Croton sometime before 1976.\(^{346}\) In 1978, P. Pensabene saw in this representation of Eros and Psyche, a small, unfinished statuette. In his point of view the plinth, the hair and *himation* of Psyche, and Eros’ legs, had been left thicker than usual in order to make the artifact sturdier for transportation. C. Moss, however, disagrees with Pensabene and notes how the figures, even if superficially executed, display well-finished and almost polished surfaces. He sees, therefore, in this object not a statuette but rather a *trapezophoros*, a supporting pillar for a marble table which, due to its function, did not have to be perfectly finished. Considering that the shipwreck’s cargo contained at least two marble slabs that could serve as table tops, Moss’ hypothesis originally seemed more convincing, but after considering the total height of the statuette (1.30 m) and comparing it with other published *trapezophori* (averaging 0.75 m),\(^ {347}\) this artifact seems too tall for use as a table stand. F. Slavazzi noticed that the four elements under the base serve to affix the object to the ground, suggesting that the statuette was made for use outdoors, such as in gardens of a Roman villa.\(^ {348}\) The Mahdia wreck provides a similar bronze parallel in the form of a small statue of Eros.\(^ {349}\)

**Marble type:** *Pavonazzetto*.\(^ {350}\)

Height (total): 1.30 m  
Height (statue): 0.76 m  
Height (base) 0.54 m  
Width (base): 0.30 m; Depth (base): 0.25 m\(^ {351}\)

**Bibliography:** Lucifero in Lenormant 1976, 223, n. 29; Pensabene 1978b, 233-4, fig. 1; Moss 1988, 205-6, figs. 1-2; Pensabene 2002a, 37.

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\(^{345}\) Moss 1988, 386.  
\(^{346}\) Lucifero in Lenormant 1976, 223, n. 29.  
\(^{347}\) Andronico in De Nuccio and Ungaro 2002, 373, 74; Mastroroberto in De Nuccio and Ungaro 2002, 373-4, n. 75; Valeri in De Nuccio and Ungaro 2002, 375, n. 76; Mastroroberto in De Nuccio and Ungaro 2002, 375-6, n. 77.  
\(^{348}\) Slavazzi 2001, 93.  
\(^{349}\) Söldner 2004, 399-429.  
\(^{350}\) Pensabene 1978b, 233.  
\(^{351}\) Measurements from Pensabene 1978b, 233.
SLB 1. Marble slab.

Present location: Naval Museum, Capo Colonna.

Description: The slab is broken into two pieces, but otherwise is well preserved. Because of its thinness and one rounded corner, it is tentatively identified as a table top.

Marble type: Pavonazzetto.\textsuperscript{352}

Length: 2.10 m
Width: 1.05 m
Thickness: 0.07 m\textsuperscript{353}

Bibliography: Report May 3, 1915; Orsi 1921, 494; Pensabene 2002a, 37.

\textsuperscript{352} Pensabene 2002, 37.
\textsuperscript{353} Measurements from Pensabene 2002, 37 (who took them from Orsi 1921, 494. Orsi saw the slab intact).
ABA 1. Attic Base.

Present location: Caputi Square, Croton.

Description: There is no doubt that this artifact comes from the sea, as evidenced by the evident traces of marine encrustation and erosion. The marble quality is identical to that of the other objects from Punta Scifo A, but since the provenience is unknown (P. Orsi never mentions this item), there are no definite clues to connect it with site A. It could also have come from another shipwreck in the area. This Attic base is finished. The plinth supports first a *torus*, then a *cyma* that is visible between two splines, surmounted by a second, thinner *torus*. One corner is chipped, another completely broken off.

Marble type: White Synnadic.\(^{354}\)

Diameter: 0.64 m
Height (total): 0.25 m
Height (base): 0.10 m
Width (base): 0.74 m; Length (base): 0.74 m

Notes: Not mentioned in P. Orsi’s reports.


\(^{354}\)Pensabene 1978, 108.
ABA 2. Attic Base.

Present location: Caputi Square, Croton.

Description: As with the previous artifact, this Attic base comes from the sea, but is never mentioned in P. Orsi’s reports, nor in the reports available in the archives of Reggio Calabria’s archaeological museum. The base is finished. The plinth supports first a torus, then a cyma is visible between two splines, surmounted by a second, thinner torus. Two corners are broken off, and the upper surface is heavily eroded.

Marble type: White Synnadic.355

Diameter: 0.57 m
Height (total): 0.32 m
Height (base): 0.10 m
Width (base): 0.72 m; Length (base): > 0.68 m (broken)

Notes: Not mentioned in Paolo Orsi’s reports.


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ABA 3. Attic Base.

Present location: Caputi Square, Croton.

Description: Like the previous two artifacts, this Attic base comes from the sea, but it is never mentioned in P. Orsi’s reports, nor in the reports available in the archives of Reggio Calabria’s archaeological museum. The base is finished. The plinth supports first a torus, then a cyma is visible between two splines, surmounted by a second, thinner torus. Two corners are cut off, and the upper surface is lightly eroded. The Greek letter “K” is incised on the upper disc.

Marble type: White Synnadic.\textsuperscript{356}

Diameter: 0.62 m  
Height (total): 0.31 m  
Height (base): 0.10 m  
Width (base): 0.72 m; Length (base): 0.72 m

Notes: Not mentioned in P. Orsi’s reports.


\textsuperscript{356} Pensabene 1978, 108.
ABA 4. Attic Base.

Present location: Caputi Square, Croton.

Description: This Attic base comes from the sea, but is not mentioned in either of P. Orsi’s reports, or the archives of Reggio Calabria’s archaeological museum. The base is finished. Three corners are broken off; the artifact is otherwise well preserved.

Marble type: White Synnadic.

Diameter: 0.61 m
Height (total): 0.23 m
Height (base): 0.08 m
Width (base): 0.68 m; Length (base): broken

Bibliography: Unpublished.
ABA 5. Attic Base.

Present location: Naval Museum, Capo Colonna.

Description: This Attic base comes from the sea, but it is never mentioned in Paolo Orsi’s reports, nor in the reports available in the archives of Reggio Calabria’s archaeological museum. The base is finished. The plinth supports first a torus, then a cyma is visible between two splines, surmounted by a second, thinner torus. Two opposite corners are broken off, and the upper surface is lightly eroded.

Marble type: White Synnadic.

Diameter: 0.61 m  
Height (total): 0.23 m  
Height (base): 0.08 m  
Height (lower torus): 0.15 m  
Width (base): > 0.68 m (broken); Length (base): 0.73 m

Bibliography: Unpublished.
ICA 1. Ionic Capital.

Present location: Naval Museum, Capo Colonna.

Description: This Ionic capital is without a doubt of marine provenience, since it is heavily eroded on one side and shows clear signs of sea encrustations. However, it is never mentioned in P. Orsi’s reports, nor in the reports available in the archives of the archaeological museum in Reggio Calabria.

The capital is almost completely finished, even though the decorative elements (palmettes and ovuli) are only superficially carved. Once in place, the capital would have been completed. One pulvinus is missing, the surface of the left volute deeply abraded.

Marble type: White Synnadic.357

Length (from volute to volute): 0.71 m
Width (from volute to volute): 0.48 m
Height: 0.27 m

Notes: Not mentioned in P. Orsi’s reports.

Bibliography: Pensabene 1978, 116-7, fig. 15; Pensabene 2002a, 37.

ICA 2. Ionic Capital.

Present location: Naval Museum, Capo Colonna.

Description: This Ionic capital is without a doubt of marine provenience, since it shows clear signs of sea encrustation. However, it is never mentioned in P. Orsi’s reports, nor in the reports available in the archives of the archaeological museum in Reggio Calabria.

The capital is almost completely finished, even though the decorative elements (palmettes and ovuli) are only superficially carved.

Marble type: White Synnadic.\textsuperscript{358}

Length (from volute to volute): 0.75 m  
Width (from volute to volute): 0.52 m  
Height: 0.30 m  
Diameter: 0.50 m

Notes: Not mentioned in P. Orsi’s reports.


\textsuperscript{358} Pensabene 1978, 108.
ICA 3. Ionic Capital.

Present location: Naval Museum, Capo Colonna.

Description: This Ionic capital is well preserved and almost clean of marine encrustation. Its provenience from the aquatic environment is obvious, but since it is never mentioned in P. Orsi’s reports, nor in the reports available in the archives of the archaeological museum in Reggio Calabria, it is not sure that it came from the Punta Scifo A wreck site.

The capital is almost completely finished, even though the decorative elements (palmettes and ovuli) are only superficially carved.

Marble type: White Synnadic. 359

Length (from volute to volute): unknown
Width (from volute to volute): unknown
Height: unknown
Diameter (available for a column): unknown
Notes: Not mentioned in P. Orsi’s reports.


MOB 1. Mobile artifacts. (*Coticulae*).

**Present location:** Naval Museum, Capo Colonna.

**Description:** It has not been possible to take detailed measurements of the items which were visible in 2006, in an exhibition in the newly-open Naval Museum of Capo Colonna. P. Orsi does not mention them, and indeed it was during the 1983 excavation that they were rescued. One of the four tablets seems to have been carved from a white, purple-veined marble that seems to be *pavonazzetto*; the remaining three are made of grey and black slate. They could have been used as marble samples, or, as D. Marino suggests, as tablets for the preparation of ointments and perfumes.

**Marble type:** *Pavonazzetto*, slate.

Dimensions not available

Notes: Discovered in 1983, during the Aquarius’ excavation

**Bibliography:** Pensabene 2002a, 37.

**Present location:** Naval Museum, Capo Colonna.

**Description:** It has not been possible to take detailed measurements of this item, that in 2006 was visible on exhibition in the newly-open Naval Museum of Capo Colonna.

**Stone:** Unknown.

Dimensions not available

Notes: Discovered in 1983, during the Aquarius’ excavation

**Bibliography:** unpublished.

Amphora-type: Kapitän II / Augst 54 / Peacock & Williams Class 47 / Niederbieber 77 / Berenice MRA 7 / Robinson M237 / Ostia Form VI / Keay Type XII

**Present location:** Naval Museum, Capo Colonna.

**Description:** Two vertical handles, almost oval in section, stretch from the nearly flat shoulder to the top of the neck. They arch at the level of the rim, which is narrow with a sharp flange. The neck is tall and decorated with broad wheel-ridging. In the intact examples the body tapers to a hollow, tubular toe. The total height of the known, intact specimens is between 0.75 and 0.80 m, and seems to decrease throughout time. An example of the fifth century A.D., from Athens, is only 0.43 m high. The inner capacity seems to have been of ca. 9 l.

**Origin:** There is no direct evidence, since not one of the amphoras bore stamps or *tituli picti*. Based on distribution patterns, the place of origin seems to be the Aegean Sea. The texture of the fabric is closely connected with amphoras produced at Kos, and according to S. J. Keay it is possible that these amphoras were manufactured there.

**Geographical Distribution:** While it is most common in the eastern Mediterranean and Ostia, some examples have also been found in Germany, Britain, Greece, Spain, Romania, Iraq, Nubia, and south Russia.

**Content:** Based on traces of pitch, wine has been suggested.

**Date range:** Excavations in Ostia show that the production of this amphora type began in the second half of the second century A.D. The production peaked in the third century A.D., and continued until the beginning of the fifth century A.D., as several amphoras from Athens and Corinth testify.

**Fabric:** Bright orange in color, with inclusions of big grains of quartz.

**Notes:** Discovered in 1983, during the Aquarius’ excavation

**Bibliography:** unpublished.

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365 Keay 1984, 137.
367 Kapitan 1971, 303; Keay 1984, 137.
369 Athens: see Robinson 1959, 69, plate 15, K 113; 77, plate 16, L 33; 106, plate 28, M 237; 110, plate 29, M 274; 112, plate 31, M 303; Corinth: see Warner Lane 1990, 108-17, fig. 254, plate 15, n. 254.

Kapitän II / Peacock & Williams Class 47 / Niederieber 77 / Berenice MRA 7 / Robinson M237 / Ostia Form VI / Keay Type XII

**Present location:** Naval Museum, Capo Colonna.

**Description:** This amphora is not as well preserved as MOB 3. Of the entire amphora only the neck, one handle, and part of the shoulder are preserved, and all are heavily covered with marine encrustations. The handle that survives is almost oval in section and stretches from the nearly flat shoulder to the top of the neck. The neck is tall and decorated with broad wheel-ridging. As in MOB 3, no remains of the body or toe survive.

**Origin:** Based on distribution patterns, the place of origin seems to be the Aegean Sea; possibly the island of Kos.

**Geographical Distribution:** This amphora type is most commonly found in the eastern Mediterranean and at Ostia, but some examples have also been found in Germany, Britain, Greece, Spain, Romania, Iraq, Nubia, and south Russia.

**Content:** Probably wine, due to some pitch remains.

**Date range:** Second half of the second century A.D.-beginning of the fifth century A.D.

**Fabric:** Bright orange in color, with inclusions of big grains of quartz.

**Notes:** Discovered in 1983, during the Aquarius’ excavation.

**Bibliography:** unpublished.

Amphora-type “Warner Slane 249”

Present location: Naval Museum, Capo Colonna.

Description: This amphora is characterized by two vertical handles, which arch and curve outwards from the shoulder to the top of the neck. The flaring rim is quite narrow. The bulging neck is tall and decorated with broad wheel-ridging, not as sharp and deeply marked as in MOB 3 and MOB 4. No remains of the body or toe have survived, and since the only probable parallel from Corinth is fragmentary as well, it is impossible to determine their exact shapes. The bright orange color of the fabric, and the presence of quartz grains closely resemble the texture of MOB 3 and MOB 4.

Origin: Eastern Mediterranean?

Geographical Distribution: Croton, Corinth.

Content: Unknown.

Date range: First-half of the third century A.D. based on the excavations at the sanctuary of Demeter and Kore in Corinth.\(^{370}\)

Fabric: Bright orange in color, with inclusions of big grains of quartz, similar to MOB 3 and MOB 4.

Notes: Discovered in 1983, during the Aquarius’ excavation

Bibliography: Unpublished.

\(^{370}\) Warner Slane 1990, 116, fig. 249.

**Present location:** Naval Museum, Capo Colonna.

**Description:** Only the necks, rims, and part of the handle of five containers are on display at the Naval Museum of Capo Colonna. The necks are short and straight, and the flaring rims have a raised band at the end of their inner edge. Some grooves are present at the attachment of the neck to the container’s body. The single handle is vertical, it rises above the rim, and is decorated with two grooves.

Because the bodies are not preserved, and because it was not possible to take measurements of the mouth’s wideness and height, it is not possible to determine if the intact vessel was a pitcher or a jug.

**Origin:** Uncertain, possibly eastern Aegean (Klazomenai), or Black Sea.

**Geographical Distribution:** Croton, Corinth, Athens, Ostia.

**Content:** Unknown.

**Date range:** Second half of the second century-third century A.D., based on parallels from the Athenian agora, the sanctuary of Demeter and Kore in Corinth, and Ostia.

**Fabric:** Reddish-brown in color, with small, white and dark inclusions.

**Notes:** Discovered in 1983, during the Aquarius’ excavation.

**Bibliography:** Unpublished.

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372 Robinson 1959, 92, M 101, plates 23, 73.
374 Panella 1973, 203, 430, fig. 342.
MOB 7. Mobile artifacts. (Bronze ladles).

Present location: Naval Museum, Capo Colonna.

Description: One of the two ladles has a round, deep bowl, while the bowl of the other is missing, and only its upper diameter survives. The long, straight handles taper upward and then curve into swan’s necks and heads that helped to hang the ladles in the ship’s galley.

The shape of ladles (known also as cyathus/i in Greek and simpulum/a in Latin) is common both to the Hellenistic and Roman worlds, and there are many parallels found throughout the empire, both in bronze and silver.375 Two similar exemplars of unknown provenience and date can be seen at the Louvre Museum,376 one at the National Archaeological Museum in Naples,377 and one among the artifacts found in a tomb of 350-300 B.C. from Bolsena, Italy.378 A fresco from the tomb of Vesorius Priscus in Pompeii depicts four smaller silver ladles decorated with swan’s heads among other silverware.379

Origin: Unknown.

Geographical Distribution: Unknown.

Date range: Ladles are extremely common in the Greek and Roman world, and their shape apparently does not change much throughout time. The ladle from Bolsena, dated to the middle or end of the fourth century B.C. appears to be quite similar to the preserved ladle from Punta Scifo, which could belong to the first quarter of the third century A.D.

Notes: Discovered in 1983, during the Aquarius’ excavation

Bibliography: Unpublished.

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377 Monaco 1884, 27, plate 149.
378 Burn 1991, 171, fig. 145.
379 Coarelli 2002, 390; Dumbabin 1993, 119, fig. 3.
MOB 8. Mobile artifact. (Bronze candelabrum).

Present location: Naval Museum, Capo Colonna.

Description: The candelabrum is made of a tall adjustable shaft, square in section. Its height can be raised or lowered with the use of a special bronze dowel inserted in the notches visible along the shaft. The dowel was found still attached to the stand’s base with a little bronze chain. A tripod base decorated with lion’s paws supports the shaft, on which top a small calyx krater was made to hold the oil-lamp.

This type of candelabrum is common in Roman times: in Pompeii and Herculaneum many similar items have been found,\(^\text{380}\) as well as in eastern Thrace.\(^\text{381}\) Similar candelabra are also visible at the Louvre,\(^\text{382}\) at the Archaeological Museum of Naples,\(^\text{383}\) in the Dumbarton Oaks Collection in Washington, D.C.,\(^\text{384}\) and in the Mahdia shipwreck.\(^\text{385}\)

Origin: Unknown.

Geographical Distribution: Widespread in the east and west of the Roman empire.

Date range: The candelabra from Pompeii date to the first century A.D., as well as the exemplar from eastern Thrace.

Notes: Discovered in 1983, during the Aquarius’ excavation

Bibliography: Unpublished.

\(^\text{380}\) De Spagnolis and De Carolis 1988, 26, n. 8; 56, n.19; 67, n.29; 141, n. 84-5.
\(^\text{381}\) Atasoy 2005, 74, n. 128.
\(^\text{382}\) Ridder 1915, 153-4, plate 113, n. 3164, 3170.
\(^\text{383}\) Lamb 1969, 239, plate 84.
\(^\text{384}\) Jones 1956, 43, n. 24, table 16.c.

Present location: Naval Museum, Capo Colonna.

Description: This statuette might represent the myth of Heracles and the Ceryneian hind. Cast in lead, it probably decorated a wooden item on board the ship, or the ship itself. Two holes are visible at the base, with a bronze nail still fixed in one. On the back a cavity is visible inside the hind’s body, probably due to the “lost wax” casting technique, and a lead strip supports Heracles’ statuette. This little group was clearly made to be seen frontally.

Notes: Discovered in 1983, during the Aquarius’ excavation

Bibliography: Unpublished.
APPENDIX 2

TRANSCRIPTIONS OF THE ORIGINAL RECORDS HOUSED IN THE
ARCHIVES OF THE NATIONAL ARCHAEOLOGICAL MUSEUM OF REGGIO
CALABRIA

[2 maggio 1915].

R. ISPETTORE
DEI
MONUMENTI E SCAVI
DEL
CIRCONDARIO DI COTRONE

OGGETTO

Inventario di oggetti recuperati dal mare.

- Verbale -


Il Signor Forcellini dichiara che il giorno 30 aprile, mentre mentre il pontone Ione estraeva materiale di scogliera, nella piccola rada di Scifo, rinvenne e portò in luce alcuni pezzi di marmo lavorati che si elencheranno più sotto, e che dal primo esame riconobbe di trattarsi di materiale archeologico. In conseguenza fece regolare denunzia alle competenti autorità.


Il suddetto materiale, attualmente depositato sul molo foraneo del porto nuovo, e nel cantiere dell’Impresa Forcellini va così’ distinto:

Nel cantiere:

1°. 1 Basamento a sezione quadrata, con zampe leonine.
2°. 1 Basamento piccolo a sezione circolare, frammentario, recante sulla parte inferiore la marca ΕΛ
3°. 1 Pezzo informe per corrosione, a sezione quadrata
4°. 3 Basamenti a sezione quadrata, con zampe leonine e toro a sezione circolare, a cono tronco.
5°. 1 Lastra di marmo in cattivo stato di conservazione
6°. 2 Monconi di colonna, molto corrosi
7° 1 Labrum, con orli corrosi o rotti, e base in ottimo stato conservazione, spezzettata lievemente alla parte inferiore.

Sul molo:

1°. 3 Colonne grandi, ed una piccola, recanti in gran parte iscrizioni, in buono stato di conservazione.
2°. 3 Colonne, simili alle precedenti, in parte corrose.
3°. 5 Colonne, c.s., in stato di cattiva conservazione per corrosione
4°. 5 piedistalli parallelepipedi, ben conservati; uno solo presenta corrosione avanzata
5°. 7 grandi pezzi architettonici, uno dei quali, alla data del presente verbale, e’ caduto nelle acque del porto istesso, in prossimita’ del molo
6°. 11 pezzi incrostati o corrosi, e perciò di forma non definibile.

Tutti gli oggetti elencati sono presi in consegna dal R. Ispettore degli Scavi e monumenti, il quale, per accordi presi con l’Impresa Forcellini, e l’autorita’ politica, assicura la dovuta sorveglianza.

Il presente verbale viene letto, confermato e sottoscritto in quadruplice esemplare, dai convenuti.

Ciascun originale vien consegnato rispettivamente, al Sig. Sottoprefetto, all’ Ing. Forcellini Annibale, all’ Ufficiale di Porto, al R. Ispettore dei Monumenti.

[Fine del documento, non segue nessuna firma]

[Segue una “Copia di Verbale” identica a quanto sopra, salvo alcune correzioni ortografiche, in cui vengono però’ aggiunte le firme dei partecipanti al verbale, apparentemente non originali:]

Firmati

- Annibale Forcellini
- Armando Lucifero
- Giuseppe Pugliese
- Raffaele Lucente
- Filiberto Ruffini
[May 2, 1915]. English Translation.

ROYAL INSPECTOR
TO THE
MONUMENTS AND EXCAVATIONS
OF THE
DISTRICT OF CROTON

SUBJECT

Inventory of items recovered from the sea.

- Record -

The year 1915, the day of May 2nd, have met in Croton Messrs: Forcellini Eng. Annibale, contractor for the harbor’s building works: Lucifero Marquis Armando, Royal Inspector to the monuments and excavations: Pugliese Giuseppe, representative of Mr. Deputy Prefect Knight Zinno Vincenzo: Lucente Prof. Raffaele, member of the Supervision Committee for the Civic Museum: Ruffini Filiberto, harbor officer and representative of the Maritime Administration.

Mr. Forcellini declares that the day of April 30th, while the pontoon Ione was extracting rocky material in the little bay of Punta Scifo, he discovered and raised to the surface some worked marble items that will be listed in these pages, and that after a first examination he realized was archaeological material. Following that, he filed a regular report to the competent authorities.

The other participants in this meeting have taken note of the aforementioned report, and have proceeded to verify these same items, complying with the law of 20 June 1909, n. 364.

The aforementioned material, currently deposited on the outer dock of the new harbor, and in the yard of the Forcellini Company, is divided this way:

In the yard:

1. 1 Pedestal, square in section, with lions’ paws.
2. 1 Small pedestal, circular in section, fragmentary, bearing on the lower portion the mark “Ε.Α.”
3. 1 Shapeless item due to the erosion, square in section
4. 3 Pedestals, square in section, with lions’ paws and torus circular in section, like a frustum of a cone.
5. 1 Marble slab, poorly preserved
6. 2 Column stumps, heavily eroded
7. 1 Labrum, with rims eroded or broken and base perfectly preserved, lightly chipped at the lower edge.

On the dock:
1. 3 Big columns and a small one, most of which bear inscriptions, in good state of preservation.
2. 3 Columns, similar to the previous ones, partially eroded.
3. 5 Columns, as before, in poor state of preservation due to their erosion.
4. 5 Parallelepiped pedestals, well preserved; only one is in an advanced state of erosion.
5. 7 Big architectonic items, one of which, at the time of this record, has fallen into the water of the harbor itself, close to the dock.
6. 11 items encrusted or eroded, and therefore of unidentifiable shape.

All the listed items are taken on consignment by the Royal Inspector to the Excavations and Monuments, who, based on an agreement with the Forcellini Company and the public authorities, guarantees the due surveillance.

This record has been read, approved, and signed in four copies by the participants. Each original is handed to Mr. Deputy Prefect, to Eng. Forcellini Annibale, to the harbor officer, and to the Royal Inspector to the Monuments.

[End of the document, no original signatures]

[A second “Copy of the Record” follows, identical to this one, with the exception of some corrections of grammatical mistakes. The signatures of the participants to the meeting have been added, but apparently they are not original because all are identical.]

Signed,

- Annibale Forcellini
- Armando Lucifero
- Giuseppe Pugliese
- Raffaele Lucente
- Filiberto Ruffini
L’anno millenovecentoquindici, il giorno tre del mese di Maggio in Cotrone, sono convenuti i signori Forcellini Ing. Annibale, impresario per i lavori del porto; Zinno Cav. Vincenzo, sottoprefetto; Berlingieri Dottor Carlo, Sindaco della Città’, Ruffini Filiberto, Ufficiale del Porto; Lucifero March. Armando, R. Ispettore degli Scavi e Monumenti; Lucente Prof. Raffaele; Componente la Commissione di vigilanza del Civico Museo. Essi recatisi nello specchio d’acqua nella rada di Scifo hanno assistito alla estrazione dal fondo del mare di oggetti archeologici ivi accumulati. Le operazioni di ricupero hanno avuto per risultato l’estrazione dei seguenti oggetti di marmo:

1° Un basamento – piedistallo, a base quadrata, con zampe leonine, in ottimo stato di conservazione
2° Un basamento – piedistallo a cono tronco, a base quadrata, con zampe leonine, discretamente conservato
3° Un basamento – piedistallo corrosivo ed incrostatato
4° Un basamento – “a gola” (?) diritta, con zampe leonine discretamente conservato.
5° Due vasche tipo labrum, ottimamente conservate rotte ambedue in una parte.
6° Un labrum = sola parte del fondo con piedistallo
7° Tredici frammenti di labrum
8° Otto frammenti di lastre marmoree
9° Una lastra marmorea integra
10° Un piedistallo di forma parallelopipeda.
11° Un pezzo di fasciame di nave, in legno chiodato
12° Due blocchi, dei quali uno con indicazioni incise
13° Un blocco grandissimo.

Si è convenuto che gli oggetti elencati dal numero 1 al N. 11 siano conservati e custoditi o in recinto chiuso, o nei locali del Museo Civico. Gli altri sul molo foraneo del Porto Nuovo, nei modi indicati sul precedente verbale. Letto confermato e sottoscritto in quadruplice originale come il precedente.


Copy

The year 1915, the 3rd day of the month of May in Croton, have met Messrs Forcellini Eng. Annibale, contractor for the harbor’s works; Zinno Knight Vincenzo, Deputy Prefect; Berlingieri Dr. Carlo, City Mayor; Ruffini Filiberto, harbor officer; Lucifero Marquese Armando, Royal Inspector to the Excavations and Monuments; Lucente Prof. Raffaele; Member of the Supervision Committee for the Civic Museum.
They, visiting the sheet of water of the bay of Punta Scifo, have witnessed the uplift from the seafloor of archaeological items located there.
The salvage operations have, as a result, raised all of the following marble items:

1. A pedestal-base, with a squared base and lions’ paws, in perfect state of preservation
2. A pedestal-base shaped like a frustum of cone, with a squared base and lions’ paws, fairly well preserved.
3. A pedestal-base, eroded and encrusted.
4. A pedestal with a straight cyma, with lions’ paws, fairly well preserved.
5. Two basins labrum-like, perfectly preserved, both broken in one area.
6. A labrum = only the bottom with the pedestal.
7. Thirteen fragments of labrum.
8. Eight fragments of marble slabs.
9. A marble slab, intact.
10. A pedestal in the shape of a parallelepiped.
11. A portion of the ship’s hull, made of wood with some nails in it.
12. Two blocks, one of which with engraved indications [sic]
13. A huge block.

It has been agreed that the items listed from number 1 to n. 11 have to be conserved under surveillance or within a fence, or in the rooms of the Civic Museum.
The others will remain on the outer dock of the New Harbor, according to the agreement taken with the previous record.
Read, approved, and signed in four original copies like the previous one.

[15 maggio 1915].

R. SOPRINTENDENZA ARCHEOLOGICA
PER LA CALABRIA
(Prov. Di Reggio C., Catanzaro e Cosenza)

SEDE PROVVISORIA DI SIRACUSA
N. 2052

OGGETTO: Cotrøne – Scoperte marmi a punta Scifo

SE. Ministro alla P.I.
Direzione Gen.le Ant. E BA
Roma

Siracusa 15 maggio 1915

L’impresa Forcellini, “assuntasi” (?) dei grandi lavori al Porto di Cotrone, andando colle sue potenti draghe in cerca di scogli subacquei nelle acque di P. Scifo, comincio’ a salp[are] marmi antichi; una naturale curiosita’, congiunta alla speranza di trovare opere d’arte, fece proseguire il fortunato lavoro per un paio di giorni, intanto che vi accorrevano le autorita’ locali e la sottoscritta Soprintendenza. Ed ivi [...] appena io ebbi avviso dalla [S.] Prefettura di Cotrone delle avvenute scoperte disposi telegraficamente la sospensione dei lavori alla fine della giornata stessa, che era la 2 dalla data iniziale della scoperta.

In complesso l’impresa Forcellini coi potentissimi mezzi di cui dispone estrasse l’ingente massa di circa 150 tonn. di marmi, che deposito’ sulle banchine nel suo cantiere del porto di Cotrone, trasportandoli da circa 12 km di distanza.

Mi mancano ancora moltissimi dati per stendere una anche sommaria relazione scientifica, ma in sostanza posso assicurare la E. V., che si tratta di quel deposito di marmi subacquei, in seguito a naufragio di una nave romana, di cui diedi una illustrazione, per quel tanto che era possibile, in Supplem. Notizie 1910 pag.118 e segg.

Allora l’impresa Tricoli con deboli mezzi estrasse pochi ma ragguardevoli pezzi, che le attuali scoperte hanno quantitativamente quasi decuplicati; sono tutti marmi allo stato di abbozzo, decorativi, od addirittura grezzi, nessuno plastico. Colonne, grandi are, bacini e bacinetti (labra), basi e sostegni diversi, lastroni, non che alcuni massi prismatici appena digrossati, il maggiore dei quali (m. 3.80 x 2 1/4 circa x 0.84) e’ di un peso colossale, che si aggira intorno alle 30 tonnellate (sic). Molti dei marmi sono contrassegnati con una capsula plumbea in forma di targhetta ansata, e parecchi portano delle lunghe ed anche lunghissime iscrizioni romane di cava, analoghe a quelle gia’ da me pubblicate. Ho fatto tentativi disperati per cavare gli apografi di questi [modifiloli?], ma finora i risultati conseguiti sono ben lunghi dal soddisfari, opponendosi difficolta’ gravissime al desiderio di avere apografi od almeno calchi perfetti; l’azione della salsedine e dei molluschi ha talvolta così’ dilavato od anche erosa la superficie scritta, a lettere per giunta poco profonde, che la lettura di talune parti piuttosto che difficile e’ addirittura impossibile.
Aggiungasi che dato l’accatastamento dei pezzi e la mole di essi non è possibile muoverli e metter le superfici scritte sotto un determinato angolo di luce, che agevoli la difficile lettura. Non bisogna tuttavia disperare, e confido di migliorare sensibilmente con rinnovati tentativi i primi apografi ottenuti. Ma occorre tempo e pazienza. Posso però fin da ora dichiarare, che si tratta di lunghe marche delle cave di Luni, con nomi di [consoli] e di funzionari delle cave stesse; l’epoca si aggira attorno al 200 d. Cr. – In fine si raccolsero pezzi ragguardevoli del fasciame del naviglio affondato.

Nella mia visita a Cotrone, oltre che dell’esame, per ora preliminare, del materiale, ho dovuto occuparmi di altre questioni diverse, ed io sottopongo ora alla E. V. le conclusioni cui sono arrivato.

a) Il contegno dell’impresa Forcellini fu correttissimo. Avverti’ la R. Prefettura delle scoperte (si era a circa 12 km di mare dalla città’), la quale si mise tosto in contatto col sottoscritto, che ordino’ la sospensione dei lavori. Ma per due giorni si lavorò’, e fu bene.

b) L’impresa Forcellini vanta diritti sul quarto del valore del materiale scoperto; ma io contesterei tale diritto, [trattandosi] di impresa portuale per conto dello Stato, nei cui contratti devesi sempre includere la clausola delle scoperte fortuite, il cui prodotto deve venire senza compenso allo Stato. Desidero conoscere su di cio’ il pensiero di V. E. per regolare la mia ulteriore linea di condotta.

c) L’impresa Forcellini mi ha presentato un conto di massima di L. 4300 per le opere di salpamento, trasporto e scarico (tre giorni di lavoro). Ho richiesto il conto di dettaglio, che, tra breve trasmetterò e, forse con qualche riduzione, converrà pagare.

d) Propongo che i marmi rimangano a Cotrone, dati in deposito statale al locale Museo Civico, che in piccola parte li disporra’ nelle sue sale, ed il resto in speciali aiole del giardino pubblico. Ma per il solo trasporto dalla assai discosta banchina e dal cantiere alla sede definitiva occorre una spesa di parecchie centinaia di lire. [Siponga] neanche al solo masso di 30 tonnellate, la cui rimozione per terra e’ un problema.

e) A suo tempo qualche buon campione dei labra minori e delle basi potra’ essere destinato al Museo Nazionale di Reggio.

f) L’impresa Forcellini ambisce l’onore di procedere alla completa ed esauriente esplorazione e sfruttamento del banco subacqueo marmifero, che ha una superficie di m. 150 x 70 circa, e dove il palombaro asserisce esservi ancora un materiale enorme. Da un primo calcolo da me fatto coll’ingegnere Forcellini, la spesa si aggirerebbe intorno alle L. 35.000, essendo indispensabile una nuova macchina escavatrice ad aspirazione, per togliere tutto il banco sabbioso avvolgente i marmi, che ha una [pascura] di m. 2 o 3. Affinchè la E. V. sia in grado di decidere, e di presentare, se sara’ il caso, una leggina speciale, ho deciso che l’impresa rediga un progetto di dettaglio.

Tale l’esito della mia missione a Cotrone, i cui risultati sottopongo all’esame di V.E. Il Soprint. P.o

ROYAL ARCHAEOLOGICAL SOPRINTENDENZA
OF CALABRIA
(Provinces of Rhegium, Catanzaro and Consentia)

TEMPORARY BRANCH OF SYRACUSE
N. 2052

SUBJECT: Croton – Discoveries of marble at Punta Scifo

His Excellency Secretary Public Instruction
General Direction Fine Arts Bureau
Rome

Syracuse, May 15, 1915

The Forcellini Company, undertaking the large enterprise of the works at the Harbor of Croton, while with its powerful dredges was looking for underwater boulders in the water of Punta Scifo, began raising ancient marbles; a natural curiosity, along with the hope of finding artworks, kept the lucky work going for a couple of days, while the local authorities and this Soprintendenza were reaching the site. And there as soon as alerted by the [S.?] Prefecture of Croton of the discoveries that took place, I sent by telegraph my decision to stop the work at the end of that same day, that was the second from the original date of the discovery.

All told, the Forcellini Company, with its powerful gear, raised the remarkable quantity of ca. 150 tons of marbles, that were left on the docks of its yard in the harbor of Croton, after carrying them from ca. 12 km of distance.

I still lack too many data to write even a concise scientific report, but after all I can assure Your Excellency that we are dealing with that deposit of underwater marbles coming from the shipwreck of a Roman merchantman which I have already described, as much as it was possible, in Suppl. Notizie 1910, page 118 and following.

At that time the Tricoli Company raised with its limited means a few, but remarkable items, that the current discoveries have increased almost tenfold; they all are marbles roughly worked out, decorative, or totally unfinished; no sculptures are present. Columns, great ara, large and small basins (labra), bases and different pedestals, big slabs, and also some prismatic blocks just rough-hewn, the largest of which (ca. m. 3.80 x 2\(1/4\) x 0.84) has a huge weight, around 30 tons. Many of these marble items are marked with a lead seal shaped like a little ansate plate, and many bear long and even extremely long Roman quarry inscriptions, similar to those I already published. I made desperate attempts to get the impressions of these [modifiloli?], but for the time being the results are far from being satisfactory. My desire to get apographs or at least perfect impressions gets frustrated by insurmountable difficulties; the action of salted water and marine life has sometimes abraded and eroded the written surface, which is characterized by letters carved not too
deep into the stone, that the reading of some parts of them is not only difficult, but impossible. It must also be considered that because of the stockpiling of the items and their size it is not possible to move them and place the written surfaces under a certain light angle that could make the reading easier. We do not need to despair, however, and I am sure that I will be able to improve substantially the first apographs I got with further, following attempts. But more time is required. I can be sure, right now, that these are long inscriptions of the Luna quarries, with names of [consuls] and employees of the quarries themselves; the age needs to be placed around A.D. 200. Eventually, remarkable fragments of the planking of the shipwreck were discovered.

During my visit to Croton I had to deal not only with the preliminary analysis of this material, but also with other issues. I would like to inform Your Excellency of the conclusions I have reached.

a) The behavior of the Forcellini Company has been extremely appropriate. They alerted the Royal Prefecture of the discoveries (they were working at sea, at a distance of ca. 12 km from the city), and the Prefecture immediately got in touch with me, who ordered to stop the works. But for two days the works went on, and it was a good thing.

b) The Forcellini Company asks for a compensation worth of one quarter of the value of the discovered items. However, I would deny such a claim, [because] they were working under a government contract, in which must always be included the clause of the accidental discoveries, whose results must be given to the government without further compensation. I would like to know Y.E. point of view on this matter, in order to address myself accordingly.

c) The Forcellini Company showed me a summary bill of 4,300 Lira for the work of raising, carrying, and unloading these items (three working days). I asked for a detailed summary of expenditures that I will transmit shortly and, maybe with some reductions, it will be appropriate to pay.

d) I propose that the marble items remain in Croton, given in deposit to the local Civic Museum, which will place a few of them in its rooms, and the remaining in special flowerbeds of the public garden. But just to move them from the very distant dock and yard to the final location several hundred Lira are required. It is not even possible to think to the boulder weighing 30 tons, whose transportation over land is an issue.

e) When time will be appropriate, a few good samples of the smaller labra and of the pedestals might be moved to the National Museum of Rhegium.

f) The Forcellini Company yearns for the honor to proceed with the total and through exploration and exploitation of the underwater deposit of marbles, that has an extension of ca. 150 x 70 m, and where the helmet-diver says is still located a huge block. According to a first estimate I did with Eng. Forcellini, the cost should be around 35,000 Lira, since a new air-lifting digging machine is required in order to remove all of the sand covering the marbles, which has a [thickness] of 2 or 3 m. In order to make Y.E. able to decide, and to write as appropriate a special, little law, I decided that the firm will present a detailed operative plan.
These are the results of my mission in Croton, whose results I submit to the review of Y.E.

The Superintendent

Po [Paolo Orsi]
[21 giugno 1915].

R. SOPRINTENDENZA ARCHEOLOGICA
PER LA CALABRIA
(Prov. Di Reggio C., Catanzaro e Cosenza)

SEDE PROVVISORIA DI SIRACUSA
N. 2097

OGGETTO: Cotrone – Blocchi marmorei rinvenuti a Punta Scifo

Allegati N. 14 Disegni, depositi in archivio disegni

Ill.mo Sig. Soprintendente Arch.
Per la Calabria
Siracusa

Siracusa, 21 giugno 1915

Atti Po.

Unisco al presente rapporto i disegni schematici dei blocchi marmorei rinvenuti a Punta Schifo [sic] a Cotrone e depositati sul costruente molo di quella città’, dove mi sono recato per ordine della S.V. Ill.ma.

Del tipo della colonna X disegnata al foglio A ve ne sono altre 11; 5 delle quali molto deteriorate, una rottina in tre pezzi e una ridotta nel senso della lunghezza, quasi a metà e fortemente corro. Del tipo della colonna Y disegnata sullo stesso foglio ve ne [sic] un’altra ma con quella specie di placca distrutta.

Entrambe le colonne hanno delle iscrizioni disegnate al foglio O.

Uguali per grandezza e qualita’ di marmo alla base disegnata al foglio B ve ne sono altre 5 talune di esse con forte incrostazioni.

Il tipo delle marche di piombo incastrate in diversi blocchi o colonne e’ unico. (Vegg. Disegno e sezione al foglio C)

Il grandioso blocco (foglio G) sulla faccia superiore ha due piani; il piu’ alto oltre a non abbracciare tutta la larghezza del blocco [ricorre] in linea col margine superiore esterno del lato lungo. La parte del piano inferiore fra il superiore e il margine si unisce a questo con una leggeria curva che va a finire nel lato corto dove il piano superiore si distacca di solo 8 centimetri.

Del blocco A (foglio H) non ne ho potuto ricavare una vedutina sia perché’ molto nascosto fra altri blocchi e sia perché’ ha molti piani rialzati. L’iscrizione del blocco O disegnato nello stesso foglio e nel foglio H’ trovasi nel foglio O dove e’ riprodotta una parte dell’iscrizione del blocco S (fogli L – I) letta attraverso piccoli vuoti lasciati dai blocchi sovrappostiglì.
Nel foglio M presento il disegno di una delle vasche, depositate nel cantiere Forcellini. In tutte sono quattro, la disegnata alla quale manca poca parte, ed altre 3 frammentate ed incomplete.

L’Impresa Forcellini fa premura perché si trasportino i blocchi, avendo bisogno dello spazio da essi occupato per proseguire i suoi lavori.

Il R. Ispettore On. (Sig. March. Armando Lucifero) ed altri sgg. Cotronesi pregano la S.V. Ill. acciocché voglia riprendere gli scavi per rimettere alla luce le glorie antiche della loro città e illustrarle.

Con profondo ossequio

Il R. Soprastante

Claudio Riva [Rina?]
I enclose with this report the schematic drawings of the marble blocks found in Punta Schifo [sic] in Croton and deposited on the dock currently under construction in that city, where I went myself following Your order.

The column-type X, drawn on the sheet A, has 11 similar specimens, 5 of which are extremely damaged, one shattered in three pieces and one shortened lengthwise, almost in the middle and deeply eroded. There is another column similar to column-type Y, drawn on the same sheet, but with that kind of seal destroyed.

Both columns have some inscriptions, which are drawn on sheet O.

There are 5 bases identical in size and marble quality to the base drawn on sheet B, some of them deeply encrusted.

There is only one type of lead seal driven in several blocks or columns. (See drawing and section on sheet C)

The huge block (sheet G) has two levels on the upper side; the highest does not follow the entire width of the block [and runs] with the upper external edge of the long side. The portion of the lower side comprised between the upper level and the edge joins it with a slight curvature ending on the short side where the upper edge is only 8 cm away.

I could not draw a view of block A (sheet H) both because it is hidden among other blocks, and because has many superimposed levels. The inscription of block O, drawn on the same sheet and on sheet H' is found on sheet Q where is also reproduced a portion of the inscription of block S (sheets L – I) read through some small empty spaces left among the superimposed blocks.
I show on sheet M the drawing of one of the basins deposited in the Forcellini’s yard. There are four of them; the drawn one is missing a small fragment, and 3 more are fragmentary and incomplete.

The Forcellini Company hurries us to move the blocks, since it needs the space that they occupy in order to continue the work it has started.

The Royal Inspector MP (Marquise Armando Lucifero) and other Crotonians beg You to reopen the excavations to bring back to the light the ancient glories of their city, and publish them.

With kindest respects,

The Royal Supervisor

Claudio Riva [Rina?]
APPENDIX 3

ANCIENT SOURCES

Amm. Marc. 16.10.15-16: *Verum cum ad Traiani forum venisset, singularem sub omni caelo structuram, ut opinamur, etiam numinum assensione mirabilem, haerebat attonitus, per giganteos contextus circumferens mentem, nec relatu effabiles, nec rursus mortalibus appetendos. Omni itaque spe huius modi quicquam conandi depulsa, Traiani equum solum, locatum in atrii medio, qui ipsum principem vehit, imitari se velle dicebat et posse.*

16. *Cui prope adstans regalis Ormisda, cuius et Perside discessum supra monstravimus, respondit astu gentili: “Ante” inquit “imperator, stabulum tale condi iubeto, si vales.”*

But when he [the emperor Constantius] came to the Forum of Trajan, a construction unique under the heavens, as we believe, and admirable even in the unanimous opinion of the gods, he stood fast in amazement, turning his attention to the gigantic complex about him, beggaring description and never again to be imitated by mortal men. Therefore abandoning all hope of attempting anything like it, he said that he would and could copy Trajan’s steed alone, which stands in the centre of the vestibule, carrying the emperor himself. 16. To this prince Ormsda, who was standing near him, and whose departure from Persia I have described above, replied with native wit: ‘First, Sire,’ said he, ‘command a like stable to be built, if you can. (J.C. Rolfe).

Amm. Marc. 17.4.12-14: *Et quia sufflantes adulatores ex more Constantium id sine modo strepebant, quod cum Octavianus Augustus obeliscos duos ab Heliopolitana civitate transitisset Aegyptia, quorum unus in Circo Maximo alter in Campo locatus est Martio, hunc recens adventum, difficulitate magnitudinis territus, nec contractare ausus est nec movere, discant qui ignorant, veterem principem translati aliquibus hunc intactum ideo praeterisse, quod Deo Soli speciali munere dedicatus, fixusque intra ambitiosi templi delubra, quae contingi non poterat, tamquam apex omnium eminebat. 13. Verum Constantinus id parvi ducens, avulsam hanc molem sedibus suis, nihilque committere in religionem recte existimans, si ablatum uno templo miraculum Romae sacraret, id est in templo mundi totius, iacere diu perpessus est, dum translationi pararentur utilia. Quo convecto per alveum Nilii, proiectoque Alexandri, navis amplitudinis antehac inusitatae aedificata est, sub trecentis remigibus agitanda.*

14. *Quibus ita provisis, digressoque vita principe memorato, urgens effectus inepuit, tandemque sero imposuit navi, per maria fluentaque Tibridis, velut paventis, ne quod paene ignotus miserat Niles, ipse parum sub emeatus sui discrimine moenibus alumnis inferret, defertur in vicum Alexandri, tertia lapide ab urbe seiunctum. Unde chamulcis impositus, tractuesque lenius per Ostiensem portam piscinamque publicam, Circo illatus est Maximo.*

12. And because sycophants, after their fashion, kept puffing up Constantius and endlessly dinning it into his ears that, whereas Octavianus Augustus had brought over two obelisks from the city of Heliopolis in Egypt, one of which was set up in the
Circus Maximus, the other in the Campus Martius, as for this one recently brought in, he neither ventured to meddle with it nor move it, overawed by the difficulties caused by its size – let me inform those who do not know it that that early emperor, after bringing over several obelisks, passed this one and left it untouched because it was consecrated as a special gift to the Sun God, and because being placed in the sacred part of his sumptuous temple, which might not be profaned, there it towered aloft like the peak of the world. 13. But Constantine, making little account of that, tore the huge mass from its foundations; and since he rightly thought that he was committing no sacrilege if he took this marvel from one temple and consecrated it at Rome, that is to say, in the temple of the whole world, he let it lie for a long time, while the things necessary for its transfer were being provided. And when it had been conveyed down the channel of the Nile and landed at Alexandria, a ship of a size hitherto unknown was constructed, to be rowed by three hundred oarsmen. 14. After these provisions, the aforesaid emperor departed this life and the urgency of the enterprise waned, but at last the obelisk was loaded on the ship, after long delay, and brought over the sea and up the channel of the Tiber, which seemed to fear that it could hardly forward over the difficulties of its outward course to the walls of its foster-child the gift which the almost unknown Nile had sent. But it was brought to the vicus Alexandri distant three miles from the city. There it was put on cradles and carefully drawn through the Ostian Gate and by the Piscina Publica and brought into the Circus Maximus. (J. C. Rolfe).

App. B. Civ. 5.14.133:
Πομπηῖος δ᾿ ἐκ μὲν Σικελίας ἀκρα Λακινία προσέχε καὶ τὸ ἱερὸν τῆς Ἅπας πλούτου ἀναθήμασιν ἐσφυλῆσε, φεύγων ἐς Ἀντώνιον.

Pompeius, fleeing from Sicily to Antony, stopped at the Lacinium promontory and robbed the rich temple of Juno of its gifts. (H. White).

App. Sam. 7.1:
"Ὅτι Κορνῆλιος ἐπὶ καταφράκτων δέκα νεῶν ἐθεάτο τῷ μεγάλῳ Ἐλλάδα, καὶ τες ἐν Τάραντῳ δημαγωγὸς Φιλόχαρις, αἰσχρὸς τε βεβιωκός καὶ παρὰ τούτῳ καλοῦμενος Θαῖς, παλαιῷς τοὺς Ταραντίνους ἀνεμίμησε πυθῆκων, μὴ πλεῖν ὅμως πρόσω Λακινίας ἀκρας, παροξύνας τοὺς ἐπείσεν ἐπαναχθῆναι τῷ Κορνήλιῳ. καὶ τέσσαρας μὲν αὐτοῦ ναῦς κατέδυσαν οἱ Ταραντίνοι, μὲν δὲ ἐλαβον αὐτοὺς ἀνδράσιν. ἔς τε Θουρίους ἐγκλήματα ποιοῦμενοι ὁτί Ἑλλήνες ἔντες ἐπί τῷ Ρωμαίους κατέψυκον ἀντὶ σγῶν, καὶ παρελθεῖν αὐτοὺς ἐπέκειναι αἴτιοι μάλιστα ἐγεγένητο, τοὺς μὲν ἐπιφανεῖς αὐτῶν ἐξέβαλον, τὴν δὲ πόλιν διήρπασαν, καὶ τοὺς Ῥωμαίων φρουροὺς ὑποσπόνδους ἀφήκαν.

Conelius went on a voyage of inspection along the coast of Magna Graecia with ten decked ships. At Tarentum there was a demagogue named Philocharis, a man of obscene life, who was for that reason nicknamed Thais. He reminded the Tarentines of an old treaty by which the Romans had bound themselves not to sail beyond the promontory of Lacinium, and so stirred their passion that he persuaded them to put to sea and attack Cornelius, of whose ships they sank four and captured one with all on board. They also accused the Thurini of preferring the Romans to the Tarentines although they were Greeks,
and held them chiefly to blame for the Romans overpassing the limits. Then they expelled
the noblest citizens of Thurii, sacked the city, and dismissed the Roman garrison under a
flag of truce. (H. White.)

Arist. Pol. 7.1329b: καὶ τὴν ἄκτην ταύτην τῆς Εὐρώπης Ἰταλίαν τοῦνομα λαβέιν ὡς τετύχηκεν ἐντὸς οὖσα του κόλπου τοῦ Σκυλλητικοῦ καὶ του Λαμήτηκοῦ ἀπέχει δὲ ταύτα ἀπ’ ἀλλήλων ὠδόν ἡμεσίας ἡμέρας.

The name of Italy was given to all that promontory of Europe lying between the
Gulfs of Skylletium and of Lametus, which are half a day’s journey apart. (H. Rackham).

Cato, Agr. 22.3: Trapetus emptus est in Suessano HS CCC et olei P. L. Conpsturae
HS LX; vecturam boum, operas VI, homines VI cum bubulcis HS LXXII; cupam
ornatam HS LXXII, pro oleo HS XXV; S.S. HS DCXXVIII. Pompeis emptus ornatus
HS CCCXXCIII; vecturam HS CCCX; domi melius concinnatur et accommodatur,
eo sumpti opus est HS LX: S.S. HS DCCXXIII. 4 Si orbes in veteres trapetos parabis,
medios crassos P. I digitos III, altos P. I, foramen semipedem quoquo vorsum. Eos
cum advexeris, ex trapeto temperato. Ii emuntur ad Rufri macerias HS CXXC,
temperantur HS XXX. Tantidem Pompeis emitur.

A mill is bought near Suessa for 400 sesterces and fifty pounds of oil. The cost
of assembling is 60 sesterces, and the charge for transportation by oxen, with six days’
wages of six men, drivers included, is 72 sesterces. The bar complete costs 72
sesterces, and there is a charge of 25 sesterces for oil; the total cost is 629 sesterces. At
Pompeii one is bought complete for 384 sesterces, freight 280 sesterces. It is better to
assemble and adjust on the ground, and this will cost 60 sesterces, making a total cost
of 724 sesterces. If you are fitting old mills with stones, they should be 1 foot 3 fingers
thick at the centre and 1 foot in diameter, with a half-foot square opening; alter them to
fit the mill after they have been hauled. These can be bought at the yard of Rufrius for
180 sesterces, and fitted for 30 sesterces. The price is the same at Pompeii. (W.D.
Hooper).

Cic. Att. 9.19: Nos, quoniam superum mare obsidetur, infero navigabimus, et, si Puteolis
erit difficile, Crotonem petemus aut Thurios et boni cives amantes patriae mare infestum
habebimus.

As for me, since the Adriatic is beset, I shall sail by the lower sea, and, if it will be
difficult to start from Puteoli, I shall seek Croton or Thurii, and like a loyal and patriotic
citizen play the pirate. (E. O. Winstedt).

Cic. Att. 13.6.1: De aquae ductu probe fecisti. Columnarium vide ne nullum
debeamus; quamquam mihi videor audisse a Camillo commutatam esse legem.

You have done quite right about the aqueduct. Make sure whether I owe any
pillar-tax at all. However, I think I heard from Camillus that the law had been changed.
(E.O. Winstedt).
Cic. Brut. 85: *Memoria teneo Smyrnae me ex P. Rutilio Rufo audisse, cum diceret adolescentulo se accidisse, ut ex senatus consulto P. Scipio et D. Brutus, ut opinor, consules de re atroci magnaque quaerentur. nam cum in silva Sila facta caedes esset notique homines interfecti insimulareturque familia, partim etiam liberi societatis eius, quae picarias de P. Cornelio L. Mummio censoribus redemisset, decrevisse senatum, ut de ea re cognoscerent et statuerent consules.*

I still remember an anecdote which I heard from Publius Rutilus at Smyrna: how in his early youth the consuls Publius Scipio and Decimus Brutus, I believe, were instructed by a resolution of the senate to investigate a great and shocking crime. It seems that in the forest of Sila murderer had been committed, resulting in the death of well-known men; and that slaves of the company’s household were under accusation, as well as some free members of the corporation which had leased the pine-pitch product from the censors Publius Cornelius and Lucius Mummius. The senate therefore had decreed that the consuls should make investigation of the charges and pass judgment. (G. L. Hendrickson).

Cic. Div. 1.48: *Hannibalem Coelius scribit, cum columnam auream, quae esset in fano lunonis Laciniae, auferre vellet dubitaretque, utrum ea solida esset an extrinsecus inaurata, perterebravisse; cunque solidam invenisset, statuisse tollere; ei secundum quietem visam esse lunonem praedicere, ne id faceret, minarique, si fecisset, se curaturam, ut eum quoque oculum, quo bene videret, amitteret. Idque ab homine acuto non esse neglectum; itaque ex eo auro quod exterebratum esset buculam curasse faciendam et eam in summa columna collocavisse.*

Coelius writes that Hannibal wished to carry off a golden column from Juno’s temple at Lacinium, but since he was in doubt whether it was solid or plated, he bored into it. Finding it solid he decided to take it away. But at night Juno came to him in a vision and warned him not to do so, threatening that if he did she would cause the loss of his good eye. That clever man did not neglect the warning. Moreover out of the gold filings he ordered an image of a calf to be made and placed on top of the column. (W. Armistead Falconer).

Cod. Theod. 10.19.2: *IMP. IULIANUS A. AD RUFINUM COM(ITEM) OR(IENTIS). Quoniam marmorum cupiditate in immensum quoddam saxorum pretia aucta sunt, ut sumptuosa voluntas copia relaxetur, permittimus omnibus, ut qui volunt caedere habeant licentiam adtributam. Fore enim arbitramur, ut etiam conplures saxorum nitentium venae in lumen usumque perveniant. DAT. XI KAL. NOV. ANTIOCHIAE IULIANO A. III ET SALLUSTO CONSS.*

EMPEROR JULIAN AUGUSTUS TO RUFINUS, COUNT OF THE ORIENT. Since the desire for marble has enormously increased the price of such stone, in order that this expensive wish may be alleviated by an abundant supply, we permit that all men who wish to quarry shall have the license granted to them. For we consider that the result will be that very many veins of glistening stone will also come to light and into use. Given on the eleventh day before the kalends of October in the year of the third consulship of Julian Augustus and the consulship of Sallustius. - October 22, 363. (C. Pharr).
The same Augusti to Rufinus, Praetorian Prefect. We command that the hands of private persons shall be prohibited from operating any marble quarry whatever, so that the prosecution of such operations may be more freely indulged on fiscal lands. But if any person, working secretly, should hereafter attempt such operations, all that he may cut out shall be vindicated to the ownership of the fisc and of the public. Given on the day before the ides of February at Constantinople in the year of the third consulship of Theodosius Augustus and the consulship of Abundantius.-February 12, 393. (C. Pharr).

Diod. Sic. 4.24.7:

Heracles then crossed over into Italy with the cattle and proceeded along the coast; there he slew Lacinus as he was attempting to steal some of the cattle, and to Croton, whom he killed by accident, he accorded a magnificent funeral and erected for him a tomb; and he foretold to the natives of the place that also in after times a famous city would arise which should bear the name of the man who had died. (C. H. Oldfather).

Diod. Sic. 8.17.1-2:

"Oti Múskellos tis 'Achaidos ón to génoi ek 'Rúphtas katýmplhsein eis Delfous kai ton theon épírwmhse peri téknwv geýnésves. Í de Plthia ánêlve oútwos. Múskelle braxúwte, filéi s' ekárgegos 'Apollon, kai geýnaw dôsei tòde de prôterhon se kéléuei, oikhentai se Krôtwma mégan kalaios én árouerais. Toú de Krôtwma ánoynwtos eispeîn pálin tìn Plthian, autòs sou fhrázei ékathbóllos, allá svnìhei. Oútos mév Taflis tòi ánýrrotos, Ídei de Xalakis, Ídei de Kouhíttow ... Í ierà khôw, aídei Ó 'Ekvndhès eisí polús Ó ep' áristepara póntos. Oútow s' ouk an fhmí Lakinou úkrou amartwvn ou'd' ieráse Kriýmhtis ou'd' Aíasárou potamwów. "Oti toú chrwmou prôstápttwtos Krôtwma kitéinein Ó Múskellos tin peri tìn Sýbarin khwran thwmássas éboulêto kítose, kai ekêpeşe chrwmós autów oútos, Múskelle braxúwte, parèktheou allá mawteoun klaimata maðteuei, dòwr Í diô òdiw òdoi aînei."
Myscellus, an Achaean by birth, went from Rhype to Delphi and inquired of the god concerning the begetting of children. And the Pythian priestess gave him the following answer:

Myscellus, too short of back, beloved art thou
Of him, even Apollo, who works afar,
And he will give thee children; yet this first
Is his command, Croton the great to found
Amidst fair fields.

And since he did not understand the reference to Croton, the Pythian priestess gave answer a second time:

To thee the Far-darter in person now doth speak,
And give thou heed. Here lieth the Taphian land,
Untouched by plow, and Chalcis there, and there
The home of the Curetes, sacred soil,
And there the isles of the Echinades:
And on the islands’ left a mighty sea.
This way thou cans’ not miss the Lacinian Head,
Nor sacred Crimisa, nor Aesarus’ stream.

Although the oracle thus commanded Myscellus to found Croton, he, because of his admiration of the territory of Sybaris, wished to found a city there; whereupon the following oracle was delivered to him:

Myscellus, too short of back, in searching things
Other than god commands, thou seekest naught
But tears. Approve the gift the god doth give. (C. H. Oldfather).

**Diod. Sic. 13.3.3-5:** ἐπεί δ’ ἀπαντες ἠθροίσθησαν, διαπλεύσαντες τὸν Ἰόνιον πόρον πρὸς ἄκραν Ἰαπυγίαν κατηριχθήσαν, κάκειθεν ἤδη παρελέγοντο τὴν Ἰταλίαν. ὑπὸ μὲν οὖν Ταραντίνων οὐ προσδέχθησαν, Μεταποιτίνως δὲ καὶ Ἡρακλεώτας παρέπλευσαν· εἰς δὲ θωρίου κατενεχθέντες πάντων ἔτυχον τῶν φιλαιθρῶν. ἔκειθεν δὲ καταπλεύσαντες εἰς Κρότωνα, καὶ λαβόντες ἀγορὰν παρὰ τῶν Κροτώιστῶν, τῆς τε Λακινίας Ἡρας τὸ ιερὸν παρέπλευσαν καὶ τὴν Διοσκουρίαδα καλουμένην ἄκραν ὑπερέθεντο, μετὰ δὲ ταῦτα τὸ καλούμενον τε Σκυλλήτου καὶ Δοκροῦς παρῆλθαν, καὶ τοῦ Ἡργίου καθορμισθέντες ἐγγὺς ἐπείθου τοὺς Ἡργίνους συμμαχεῖν· οἱ δὲ ἀπεκρίναντο βουλεύσασθαι μετὰ τῶν ἄλλων Ἰταλῶν.

And when they (the Athenians at Corecyra) had all been assembled, they sailed across the Ionian Strait (the Otranto Channel) and came to land on the tip of Iapygia, from where they skirted along the coast of Italy. They were not received by the Tarantini, and they also sailed on past the Metapontines and Heracleians; but when they put in at Thurii they were accorded every kind of courtesy. From there they sailed on to Croton, from whose inhabitants they got a market, and then they sailed on past the temple of Hera Lacinia and doubled the promontory known as Dioscurias. After this they passed by Skylletium, as it is called, and Locri, and dropping anchor near Rhegium they endeavored to persuade the Reginians to become their allies; but the Reginians replied that they would consult with the other Greeks of Italy. (C. H. Oldfather).
Dion. Hal. Antiquitates Romanae 20.15.1-2: Οἱ Βρέττιοι ἐκόντες ὑποταγέντες Ἰτικαὶ τὴν ἡμίσειαν τῆς ὑδρευνῆς παρέδωκαν ἀυτοῖς, ἢ καλεῖται μὲν Σιλα, μεστῇ δ᾽ ἐστὶν ὅλης εἰς ὀικοδομᾶς τε καὶ ναυτηγίας καὶ πᾶσαν ἄλλην κατασκευήν εὐθέτον· πολλὴ μὲν γὰρ ἐλάτη πέφυκεν ὑφανομῆγης ἐν αὐτῇ, πολλὴ δὲ αἴγειρος, πολλὴ δὲ πιέρα πεύκη ὃνιθα τε καὶ πῖτυς καὶ φυγὸς ἀμφιλαφῆς καὶ μελία τὰς διαρρεύσεις λιβάζει πιανόμενα, καὶ πᾶσα ἄλλη βαθεία συνυφαίνομενή τοὺς κλάδοις ὅλης σκιερῶν ἀποτελοῦσα δι᾽ ὅλης ἡμέρας τὸ ὄρος.

Εἴ ᾗς ἡ μὲν ἐγγίστα θαλάττης καὶ ποταμῶν φυμένης τιμηθείσα τὴν ἀπὸ ρίζης τομῆς ὁλόκληρος ἐπὶ τοὺς λιμένας τοὺς ἐγγίστα κατάγεται, πάσῃ διαρκής Ἰταλίᾳ πρὸς τε τὰ ναυτικὰ καὶ πρὸς τὰς τῶν ὀικίων κατασκευὰς· ἢ δὲ ἄνωθεν θαλάττης καὶ ποταμῶν πρόσω χαρμασθείσα κατὰ μέρη κύπος τε παρέχει· καὶ κυντοῦς καὶ ὀπλα παντοῦ καὶ σκεύη τὰ κατοικίδια, φοράδην ὑπ᾽ ἀνθρώπων κοιμόμενη· ἢ δὲ πλείστη καὶ πιοτάτη πιπτορυγεῖται καὶ παρέχει αὐτῷ ὑπὲρ ὃς ἡ μεῖζὸς εὐωδεστάτην τε καὶ γλυκυτάτην τὴν καλομέμην Βρέττιαν πιπτάν· ἢ τῶν Ἰτικαίων δήμοις καθ᾽ ἕκαστον ἐνναύον ἐν κῶνοις μισθῶσεις λαμβάνει προσόδους.

The Bruttians, after submitting willingly to the Romans, delivered up to them one-half of their mountainous district, called Sila, which is full of timber suitable for the building of houses and ships and every other kind of construction. For much fir grows there, towering to the sky, much black poplar, much pitch pine, beech, stone pine, wide-spread oak, ash trees enriched by the streams flowing through their midst, and every other kind of tree with densely-intertwined branches that keep the mountain in shadow throughout the whole day.

Of this timber, that which grows nearest the sea and rivers is felled at the root and taken down in full lengths to the nearest harbours, sufficient in quantity to serve all Italy for shipbuilding and the construction of houses. That which grows inland from the sea and remote from rivers is cut up in sections for the making of oars, poles and all kinds of domestic implements and equipment, and is carried out on men’s shoulders. But the largest and most resinous part of the timber is made into pitch, furnishing the most fragrant and sweetest pitch known to us, the kind called Bruttian, from the farming out of which the Roman people receive large revenues every year. (E. Cary).


Mindyrides … we are told, set sail from Sybaris in a ship of fifty oars, the rowers being slaves of his own household, some of them fishermen and others fowlers. (C. H. Oldfather).

Diod. Sic. 13.3.3-5: ἔπει δ᾽ ἀπαντεῖ ἡμροῖσθησαν, διαπλεύσαντες τῶν Ἰόνιοι πόρον πρὸς ἄκραν Ἰταλίαν κατηκέχουσαν, κάκειθεν ἦν ὁ παρελεύγων τὴν Ἰταλίαν. ὅποι ἡ μὲν Ταραστίων οὐ προσεδέχθησαν, Μέτασπητίων δὲ καὶ Ἡρακλείωτας παρέπλευσαν· εἰς δὲ Θυβίους κατενεχθέντες πάντων ἐπιχύντων φιλανθρώπων. ἐκεῖθεν δὲ καταπλεύσαντες εἰς Κρότωνα, καὶ λαβόντες
And when they (the Athenians at Corcyra) had all been assembled, they sailed across the Ionian Strait (the Otranto Channel) and came to land on the tip of Iapygia, from where they skirted along the coast of Italy. They were not received by the Tarantini, and they also sailed on past the Metapontines and Heracleians; but when they put in at Thurii they were accorded every kind of courtesy. From there they sailed on to Croton, from whose inhabitants they got a market, and then they sailed on past the temple of Hera Lacinia and doubled the promontory known as Dioscurias. After this they passed by Skylletium, as it is called, and Locri, and dropping anchor near Rhegium they endeavored to persuade the Rhegians to become their allies; but the Rhegians replied that they would consult with the other Greeks of Italy. (C. H. Oldfather).


When the Italians learned that Dionysius had crossed the sea to attack Rhegium, they dispatched sixty ships from Croton, with intent to hand them over to the Rhegians. (C. H. Oldfather).

Diod. Sic. 16.18.2: οὗτος μὲν ὄνω ἐκ Λοκρῶν ἀναχθεὶς ἐτέλει τὸν εἰς Συρακούσας πλοῦν.

Nyspius then set sail from Locri and completed the voyage to Syracuse. (C. L. Sherman).

Diod. Sic. 22.8.3: ἔμμισσας δὲ τῶν ἄλλων παρασκευῆς, ἐξέπλευσεν ἐκ τῆς Τάραντος, καὶ δεκατάοις εἰς Λοκρῶν κατῆρεν.

He (Pyrrhus) embarked his men, his elephants, and his other equipment of war aboard his ships, set sail from Tarentum, and put it Locri on the tenth day. (F. R. Walton).

Herod. 8.47:

τῶν δὲ ἐκτὸς τούτων οἰκημένων Κροτωνιητῶν μοῦνοι ἦσαν οἱ ἐβοήθησαν τῇ Ἑλλάδι κυνδυνεύουσῃ μὴ νηλί, τῆς ἦρχε ἀνὴρ τρίς πυθιονίκης Φάυλλος' Κροτωνιητὴς δὲ γένος εἰς Ἀχαλίοι.

Of those that dwell farther off than these, the men of Croton alone came to aid Hellas in its peril, and they with one ship, whereof the captain was Phayllus, a victor in the Phytian games. These Crotoniats are of Achaean blood. (A. D. Godley).

Hor. 2.1.156: Graecia capta ferum victorem cepit et artis intulit agresti Latio.

Greece, the captive, made her savage victor captive, and brought the arts into rustic Latium. (H. Rushton Fairclough).
Livy 23.30.6: Isdem ferme diebus et Bruttiorum exercitus Crotonem, Graecam urbem, circumsedit, opulentam quondam armis virisque, tum iam adeo multis magnisque cladibus adflictam ut omnis aetatis minus duo milia civium superessent.

About the same time an army of the Bruttians also besieged Croton, a Greek city formerly rich in arms and men, but even so crushed by so many disasters that, including all ages, less than two thousand citizens remained. (F. Gardner Moore).

Livy 24.1.9: L. Atilio praefecto praesidii quique cum eo milites Romani erant clam in portum deductis atque impositis in navis, ut Regium deveherentur, Hamilcarem Poenosque... in urbe acceperunt.

After Lucius Atilius, commander of the garrison, and the Roman soldiers who were with him had been secretly led down to the harbor and put on ships to be carried to Rhegium, they admitted Hamilcar and the Carthaginians into the city. (F. Gardner Moore).

Livy, 24.2.1-3: Sic a freto Poeni reducti frementibus Bruttis quod Regium ac Locros, quas urbes direpturos se destinaverant, intactas reliquissent. Itaque per se ipsi conscriptis armatisque iuventutis suae quindecim milibus ad Crotonem oppugnandum pergunt ire, Graecam et ipsam urbem et maritimam, plurimum accessurum opibus, si in ora maris urbem ac portum moenibus validam tenuissent, credentes.

Thus the Carthaginians were withdrawn from the Straits, though the Bruttians were indignant because they had left Rhegium and Locri untouched, the cities that they had counted upon plundering. And so without aid they enlisted and armed 15,000 of their young men and set out to besiege Croton, another Greek city and on the sea, believing that it would be a great addition to their resources if they should hold a fortified city and harbour on the sea-coast. (F. Gardner Moore).

Livy, 24.3.1-5: Urbs Croto murum in circuitu patentem duodecim milia passuum habuit ante Pyrrhi in Italiam adventum. Post vastitatem eo bello factam vix pars dimidia habitabatur; flumen, quod medio oppido fluxerat, extra frequentia tectis loca praeterfluebat, et arx procul eis erat quae habitabantur. Sex milia aberat ab urbe nobili templum ipsa urbe nobilius Laciniae Juponis, sanctum omnibus circa populis. Lucus ibi frequenti silva et proceris abietis arboribus saeptus laeta in medio pascua habuit, ubi omis generis sacrificium deae pecus pascebatur sine ullo pastore.

The city of Croton had a wall with a circuit of twelve miles before the coming of Pyrrhus to Italy. Since the desolation caused by that war scarcely half of the city was inhabited. The river which had flowed through the middle of the city now flowed past, outside the quarters which had numerous houses, and the citadel was far from the inhabited portions. Six miles from the famous city was a temple more famous than the city itself, that of Lacinian Juno, revered by all the surrounding people. There a sacred grove, which was enclosed by dense woods and tall fir-trees, had in its centre luxuriant pastures, where cattle of all kind, being sacred to the goddess, used to pasture without any shepherd. (F. Gardner Moore).
**Livy, 24.3.6:** Magni igitur fructus ex eo pecore capti, columnaque inde aurea solida facta et sacrata est.

Therefore great profits were made from the cattle, and out of the profits a massive golden column was wrought and consecrated. (Trans: F. Gardner Moore).

**Livy 24.3.12-5:** Morituros se adfirmabant citius quam inmixti Bruttii in alienos ritus mores legesque ac mox linguam etiam verterentur. Aristomachus unus, quando nec suadendo ad deditonem satis valebat nec, sicut urbem prodiderat, locum prodendae arcis inveniebat, transfugit ad Hannonem. Locrenses brevi post legati, cum permissu Hannonis arcem intrassent, persuadent ut traduci se in Locros paterentur nec ultima experiri vellent. Iam hoc ut sibi liceret impetaverant et ab Hannibale missis ad id ipsum legatis. Ita Crotone excessum est deductique Crotoniatae ad mare naves conscendunt. Locros omnis multitudo abeunt.

They [Croton’s aristocrats] claimed that they would sooner die than mingle with the Bruttians and change to the rites, customs and laws, and presently even the language, of another people. Aristomachus, since he was unable by persuasion to bring them to surrender and could find no opportunity to betray the citadel, as he had betrayed the city, alone went over to Hanno. Soon after that the Locrians legates entered the citadel with Hanno’s consent and persuaded them to allow themselves to be transferred to Locri, and not to risk desperate measures. Permission to that effect they had already obtained from Hannibal, having sent legates for that very purpose. So Croton was evacuated, and the Crotonians were led down to the sea and went on shipboard. They went, the whole number of them, to Locri. (F. Gardner Moore).

**Livy 27.25.11:** Locros in Bruttiis Crispinus oppugnare conatus, quia magnam famam attulisse Fabio Tarentum rebatur, omne genus tormentorum machinarumque ex Sicilia arcessierat; et naves indidae erant quae vergentem ad mare partem urbis oppugnarent.

Crispinus attempted to besiege Locri in the land of the Bruttii, because he thought that Tarentum had brought great repute to Fabius; and he had requisitioned artillery and machines of every kind from Sicily. And from the same quarter ships also had been sent for, to attack the part of the city facing the sea.” (F. Gardner Moore).

**Livy 28.46.15:** In Bruttii nihil ferme anno eo memorabile gestum. Pestilentia incesserat pari clade in Romanos Poenosque, nisi quod Punicum exercitum super morbum etiam fames adfectit. Propter Iunonis Laciniae templum aestatem Hannibal egit, ibique aram condidit dedicavitque cum ingenti rerum ab se gestarum titulo, Punicis Graecisque litteris insculpto.

In the land of the Bruttians virtually nothing notable was done that year. An epidemic, equally disastrous to both, had attacked Romans and Carthaginians, with this difference that in addition to disease hunger also weakened the Carthaginian army. Hannibal spent the summer near the temple of Juno Lacinia, and there erected an altar and dedicated it together with a great record of his achievements in a Punic and Greek inscription. (F. Gardner Moore).
Livys 29.7-7: Classis Romana a Messana Locros aliquot horis die superante accessit; expositi omnes e navibus et ante occasum solis urbem ingressi sunt.

The Roman fleet sailing from Messana reached Locri while several hours of daylight remained. All were landed from the ships and before sunset they entered the city. (F. Gardner Moore).

Livys 29.8-9-11: Nam avaritia ne sacrorum quidem spoliatione abstinuit; nec alia modo templa violate, sed Proserpinae etiam intacti omni aetate thensauri, praeterquam quod a Pyrrho, qui cum magno piaculo sacrilegii sui manibus rettulit, spoliati dicebantur. Ergo sicut ante regiae naves laceratae naufragis nihil in terram integri praeter sacram pecuniam deae quam asportabant extulerant...

It goes without saying that their avarice (of the Romans who controlled Locri Epizephyri) did not refrain from despoiling even sacred things. And not only were other temples desecrated, but also the treasure-chambers of Proserpina, untouched in every age except that they were said to have been despoiled by Pyrrhus, who met with a signal punishment and restored the plunder gained by his sacrilege. Consequently, just as formerly the king’s ships, battered and wrecked, had landed nothing intact but the goddess’ sacred money which they were trying to carry away… (F. Gardner Moore).

Livys 29.9-8: His Messanam nuntiatis Scipio post paucos dies Locros hexeri adventus cum causam Plemini et tribunorum audisset.

These acts being reported to Messana, Scipio a few days later sailed to Locri on a six-oared ship to hear the case of Pleminius and the tribunes. (F. Gardner Moore).

Livys 30.20-5: Itaque inutili militum turba praesidii specie in oppida Bruttii agri quae pauca metu magis quam fide continebantur dismissa, quod roboris in exercitu erat in Africam transvexit, multis Italici generis, quia in Africam secuturos abnuentes concesserant in Iunonis Laciniae delubrum inviolatum ad eam diem, in templo ipso foede interfectis.

After distributing the mass of useless troops, nominally as garrisons, among the few Bruttian towns that were being held rather by fear than by loyalty, he transported the flower of his army to Africa. Many men of Italic race refusing to follow him to Africa had retired to the shrine of Juno Lacinia, never desecrated until that day, and had been cruelly slain actually within the temple enclosure. (F. Gardner Moore).


Colonies of Roman citizens were established at Tempsa and Croton. The land of Tempsa had been taken from the Bruttii, who in turn had expelled the Greeks; Croton had been held by the Greeks. The triumvirs for Croton were Gnaeus Octavius, Lucius Aemilius Paulus, and Gaius Laetorius; for Tempsa, Lucius Cornelius Merula, Quintus …, and Gaius Salonius. (E. T. Sage).
Livy, 36.42.1-4: C. Livius praefectus Romanae classis, cum quinquaginta navibus tectis profectus ab Roma Neapolim, quo ab sociis eius orae convenire iussisset apertas naves quae ex foedere debabantur, Siciliam inde petit fretoque Messanam praeterrectus, cum sex Punicas naves ad auxilium missas accepisset et ab Reginis Locrisque et eiusdem iuris sociis debitas exegisset naves, lustrata classe ad Lacinium, altum petit. Corcyram, quam primam Graeciae civitatium adiit, cum venisset.

Gaius Livius, commander of the Roman fleet, sailed with fifty decked vessels from Rome to Naples, where he had ordered the allies along the coast to assemble the undecked ships which they owed under the treaty, then headed for Sicily and, passing Messina through the strait, picked up six Carthaginian ships sent to aid him, received from the people of Rhegium and Locri and the other allies of the same status the ships which he had demanded of them, and having purified the fleet at Lacinium struck out into the deep. When he had arrived at Corcyra, the first city in Greece which he reached.


Livy, 42.3.1-11: Eodem anno aedis Iunonis Laciniae detecta. Q. Fulvius Flaccus censor aedem Fortunae Equestris, quam in Hispania praetor bello Celtiberico voverat, faciebat enixo studio ne ullum Romae amplius aut magnificentius templum esset. Magnum ornatum ei templo ratus adiecturum, si tegulae marmoreae essent, profectus in Bruttiis aedem Iunonis Laciniae ad partem dimidiam detegit, id satis fore ratus ad tegendum quod aedificaretur. Naves paratae fuerunt quae tollerent atque asportarent, auctoritate censoria sociis deterritis id sacrilegium prohibere. Postquam censor redit, tegulae expositae de navibus ad templum portabatur. Quamquam unde essent silebatur, non tamen celari potuit. Fremitus igitur in curia ortus est; ex omnibus partibus postulabatur ut consules eam rem ad senatum referrent. Ut vero accersitus in curiam censor venit, multo infestius singuli universique praesentem lacerare: templum augustissimum regionis eius, quod non Pyrrhus, non Hannibal violassent, violare parum habuisse, nisi detexisset foede ac prope diruisset. Detractum culmen templo, nudatum tectum patere imbribus putrefaciendum. Ad id censorem moribus regendis creatum? Cui sarta tecta exigere sacris publicis et locare tuenda more maiorum traditum esset, eum per sociorum urbes diruentem templo nudantemque tecta aedium sacrarum vagari! Et quod, si in privatis sociorum aedificiis faceret, indignum videri posset, id eum templo deum immortalium demolientem facere, et obstringere religione populum Romanum, ruinis templorum templa aedificantem, tamquam non iidem ubique di immortales sint, sed spoliis aliorum alii colendi exornandique! Cum priusquam referretur appareret quid sentirent patres, relatione facta in unam omnes sententiam ierunt ut eae tegulae reportandae in templum locarentur piacularia Iunoni fierent. Quae ad religionem pertinebant cum cura facta; tegulas relictas in area templi, quia reponendarum nemo artifex inire rationem potuerit, redemptores nuntiarunt.

In the same year (173 B.C.) the temple of Juno Lacinia was stripped off of its roof. Quintus Fulvius Flaccus as censor was building the temple to Fortuna Equestris which he had vowed while praetor in Spain during the Celtiberian war, striving zealously that there should be no temple in Rome larger or more splendid. Considering
that it would add great beauty to the temple if the roof tiles were of marble, he set out for Bruttium and stripped the temple of Juno Lacinia of its tiles up to half their number, thinking that these would be sufficient to cover the building which was now being erected. Ships were made ready to load and transport them, the inhabitants being prevented by the censor’s high office from forbidding the sacrilege. When the censor returned the tiles were unloaded from the ships and were being taken to the temple. Although nothing was said as to where they were obtained, yet such an act could not be concealed. There was accordingly an outcry in the senate: from all sides the demand was made that the consuls should lay the question before that body. But when the censor was summoned and entered the senate-house, one and all assailed him to his face far more violently: the most venerable shrine of that region, a shrine which neither Pyrrhus nor Hannibal had violated, he had not been content with violating but had shamefully robbed it of its covering and well-night destroyed it. The top, they said, had been torn from the temple and the bare framing laid open to be rotted by the rains. Was it for this, they demanded, that a censor was chosen to control behaviour? That the magistrate to whom had been entrusted, in the fashion of the forefathers, the duty of enforcing the repair of public shrines and of contracting for their maintenance, was himself roving through the cities of the allies plundering the temples and stripping off the roofs of sacred edifices! A thing, they continued, which might well seem unworthy if done to private buildings of the allies, he was doing when he destroyed the temples of the immortal gods, and fastening upon the Roman people the guilt of impiety, building temples with the ruins of temples, just as if the immortal gods were not the same everywhere, but that some should be worshipped and adorned with the spoils of others! When it was clear, before the vote was taken, what the sentiment of the Fathers was, when the motion was put, all unanimously decreed that a contract should be let for carrying the tiles back to the temple and that atonements should be offered to Juno.

These matters which concerned expiation were scrupulously performed; the contractors reported that the tiles had been left in the court of the temple because no workman could devise a plan for replacing them. (C. Schlesinger).

Livy 42.48.6-7: Praemissus a praetore est frater M. Lucretius cum quinqueremi una, iussusque ab sociis ex foedere acceptis navibus ad Cephallaniam classi occurrere. Ab Reginis triremi una sumpta, ab Locris duabus...

The praetor sent his brother Marcus Lucretius on in advance with one quinquireme, with orders to meet the fleet at Cephallania with the ships received from the allies according to the treaty. After taking on one trireme from Rhegium, two from Locri… (A.C. Schlesinger).

Luc. 10.107-17: Pax ubi parta ducis donisque ingentibus empta est, / Excepere epulae tantarum gaudia rerum, / Explicitique suos magno Cleopatra tumultu / Nondum translatos Romana in saecula luxus. / Ipse locus templi, quod vix corruptior aetas Extruat, instar erat; laqueataque tecta ferebant / Divitis, crassumque trabes absconderat aurum. / Nec summis crustata domus sectisque nitebat / Marmoribus,
stabatque sibi non segnis achates / Purpureusque lapis, totaque effusus in aula / Calcabatur onyx.

When Caesar's favour was gained and bought by mighty gifts, so joyful an event was followed by a feast; great was the bustle, as Cleopatra displayed her magnificence—magnificence which Roman society has not yet adopted. The place itself was the size of a temple, such a temple as a corrupt age would hardly rear; the panels of the ceiling displayed wealth, and the rafters were hidden beneath a thick coating of gold. The walls shone with marble; nor were they merely overlaid with a thin surface of it; and agate stood there on its own account, no useless ornament, and porphyry. Alabaster was laid all over the hall to tread on. (J.D. Duff).

Ov. Fast. 4.64: Nec tibi sit mirum Graio rem nomine dici: Itala nam tellus Graecia major erat.

And it should not be surprising for you to be called with a Greek name: the Italian land was indeed Greater Greece. (D. Bartoli).

Ov. Met. 15.700-6: Ionium zephyrys sextae Pallantidos ortu / Itiam tenuit praeterque Lacinia templto / nobilitata deae Sclaylceque fitora fertur: / liniquit Iapygiam laevisque Amphrisia remis / saxa fugit, dextra praerupta Celennia parte / Romethiumque legit Caulonque Naryciamque / evincitque fretum Siculique angusta Pelori...

Carried by gentle breezes over the Ionian Sea, at dawn on the sixth day he reached Italy, and sailed along past the shores of Lacinium, famed for Juno's temple, and past the coast of Scylactum. He left Iapygia behind him, and was rowed past the rocks of Amphrisia on the left, the cliffs of Cocinthus on the right. Coasting by Romethium, by Caulon and Narycia, he sailed through the narrow strait of the Sicilian Pelorus...

(M. Innes).

Paus. 10.9.2:

Phayllus from Croton – He did not get a victory in Olympia, but he won twice in the pentathlon and the third time in the run at the Pythian Games. He fought in the naval battle against the Persians after having geared up his own ship, and he put on board all the Crotoniats who lived in Greece – He has a statue in Delphi. (D. Bartoli).

autem urbanius notae homines sustinetis semper mentiri, recta ad lucrum curritis. In hac
enim urbe non litterarum studia celebrantur, non eloquentia locum habet, non frugalitas
sanctique mores laudibus ad fructum perveniunt, sed quoscunque homines in hac urbe
videritis, scitote in duas partes esse divisos. Nam aut captantur aut captant. In hac urbe
nemo liberos tollit, quia quisquis suos heredes habet, non ad cenas, non ad spectacula
admittitur, sed omnibus prohibetur commodis, inter ignominiosos latitat.

We gladly performed this last office, and then took up our proposed way, and in a
short while came sweating to a mountain top, from which we saw, not far off, a town set
on a high peak. We had lost ourselves, and did not know what it was, until we learned from
a farm-bailiff that it was Croton, a town of great age, and once the first city in Italy. When
we went on to inquire particularly what men lived on such honoured soil, and what kind of
business pleased them best, now that their wealth had been brought low by so many wars,
the man replied, “My friends, if you are business men, change your plans and look for
some other safe way of life. But if you profess to be men of a superior stamp and through-
paced liars, you are on the direct road to wealth. In this city the pursuit of learning is not
esteemed, eloquence has no place, economy and a pure life do not win their reward in
honour: know that the whole of the men you see in this city are divided into two classes.
They are either the prey of legacy-hunting or legacy-hunter themselves. In this city no one
brings up children, because anyone who has heirs of his own stock is never invited to
dinner or to the theatre; he is deprived of all advantages, and lies in the obscurity among
the base-born. (M. Heseltine).

Petron. Sat. 117: “Quid vos” inquit “iumentum me putatis esse aut lapidarium
nave? Hominis operas locavi, non caballi.

“What’s wrong with you -he asked- do you think I am a beast of burden or a
stone carrier? I made arrangements for the services of a man, not a horse!” (D. Bartoli)

Plin. Ep. 10.41: C. PLINIUS TRAiano imperatori [...] est in Nicomedensis
finibus amplissimus lacus. Per hunc marmora fructus ligna materiae et sumptu modico
et labore usque ad viam navibus, inde magno labore maiore impendio vehiculis ad
mare devehuntur (...lacuna...) hoc opus multas manus poscit. [...] Superest ut tu
libratorum vel architectum si tibi videbitur mittas, qui diligenter exploret, sitne lacus
altior mari, quem artifices regionis huius quadraginta cubitis altiorem esse
contendunt. Ego per eadem loca invenio fossam a rege percussam, sed incertum utrum
ad colligendum umorem circumnia centium agrorum an ad committendum flumini
lacum; est enim imperfecta.

Pliny to Trajan. “There is a sizeable lake not far from Nicomedia, across which
marble, farm produce, wood, and timber for building are easily and cheaply brought by
boat as far as the main road; after which everything has to be taken on to the sea by
cart, with great difficulty and increased expense. (To connect the lake with the sea)
would require a great deal of labour, but there is no lack of it. [...] It remains for you to
send an engineer or an architect, if you think fit, to make an accurate survey and
determine whether the lake is above sea-level. The local experts say that it is forty
cubits above. I have looked at the site myself and find there is a canal dug by one of
the former kings of Bithynia, though whether this was intended to drain the surrounding fields or to connect the lake with the river I am not sure; it was left unfinished, and again I cannot say if this was because the king died suddenly or despaired finishing the work. (B. Radice).


Trajan to Pliny. “I may perhaps be tempted to think of connecting this lake of yours with the sea, but there must be first be an accurate survey to find how much water the lake contains and from what source it is filled, or else it might be completely drained once it is given an outlet to the sea. You can apply to Calpurnius Macer for an engineer, and I will send you out someone who has experience of this sort of work. (B. Radice).


At Locri begins the projection of Italy called Magna Graecia, retiring into the three bays of the Ausonian Sea, so called from the first inhabitants the Ausones. According to Varro its length is 86 miles, but most authorities have made it 75. On this coast are rivers beyond count; but the places worthy of mention, beginning at Locri, are the Sagra River and the ruins of Caulonia’s higher city, then Monasterace, Camp Consilinum, Punta Stilo (thought by some to be the longest promontory in Italy), then the gulf and city of Scolacium, called by the Athenians when founded it Skylleton. This part of the country is made into a peninsula by the Gulf of Santa Eufemia which runs up to it, and on it is the harbour called Hannibal’s camp. It is the narrowest part of Italy, which is here 20 miles across, and consequently the elder Dionysius wanted to cut a canal across the peninsula in this place, and annex it to Sicily. The navigable rivers in this district are the Corace, Alli, Simari, Crocchio, and Tacina; it contains the inland town of Strongoli, the range of the Monte Monaceillo, and the promontory of Lacinium, off the coast of which ten miles out lies the Island of the Sons of Zeus and another called Calypso’s Island, which is thought to be Homer’s island of Ogygia, and also Tyris, Eranusa and Meloessa. According to Agrippa the distance of the promontory of Lacinium from Caulon is 70 miles. (H. Rackham).

At the promontory of Lacinium begins the second Gulf of Europe; it curves round in a large bay and ends in Acroceraunium, a promontory of Epirus; the distance from cape to cape is 75 miles. Here are the fortress of Croton, the river Neto, and the fortress of Thurii between the rivers Crati and Sybaris, on which once stood the city of the same name. Likewise Heraclea, once called Siris, lies between the Siris and the Aciris. Then the rivers Salandra and Bassiento, and the fortress of Metapontum, where the third region of Italy ends. (H. Rackham).


And I am ashamed to confess that the chief value now set on resin is for use as a depilatory for men. (H. Rackham).


The pitch most highly esteemed in Italy for vessels intended for storing wine is that which comes from the Bruttii. (H. Rackham).

Plin. *HN* 16.22.53: *Bruttian cognomen accepit... lentore ab alia pice differens, item colore rutilante et quod pinguior est reliqua omni illa.*

And it has given the name of Bruttian pitch... and differs from other pitch by its viscosity and also by its reddish color and because it is greasier than all the rest. (H. Rackham).

Plin. *HN* 16.56.201: *Abies admirationis praecipuae visa est in nave quae ex Aegypto Gai principis iussu obeliscum in Vaticano circo statutum quattuorque trunços lapidis eiusdem ad sustinendum eum adduxit; qua nave nihil admirabilius visum in mari certum est. CXX modium lentis pro saburra ei fuere: longitudo spatium obtinuit magna ex parte Ostiensis portus laterae laevo; ibi namque demersa est Claudio principe cum tribus molibus turrium altitudine in ea exaedificatis, factis ob id ex Puteolano pulvere advectisque.*

An especially wonderful fir was seen in the ship which brought from Egypt at the order of the emperor Gaius the obelisk erected in the Vatican Circus and four shafts of the same stone to serve as its base. It is certain that nothing more wonderful than this ship has ever been seen on the sea: it carried one hundred and twenty bushels of lentils for ballast, and its length took up a large part of the left side of the harbor of Ostia, for under the emperor Claudius it was sunk there, with three moles as high as towers erected upon it that had been made of Pozzuoli cement for the purpose and conveyed to the place. (H. Rackham).

Of the thick pitches the most useful in medicine is the Bruttian, because being both very rich and very resinous. (W.H.S. Jones).

Plin. *HN* 35.34: *Lignea potius aut fictilia deorum simulacra in delubris dicata, usque ad devictam Asia, unde luxuria.*

The images of the gods placed in the temples were made preferably of wood or terracotta until the conquest of Asia, from where all the extravagance came. (D. Bartoli).

Plin. *HN* 36.1.2-3: *Promunturia aperiuntur mari, et rerum natura agitur in planum; evehimus ea quae separandis gentibus pro terminis constituta erant, navesque marmorum causa flunt, ac per fluctus, saevisssimam rerum naturae partem, huc illuc portantur iuga, maiore etiamnum venia quam cum ad frigidos potus vas petitur in nubila caeloque proximae rupes cavantur, ut bibatur glacie.*

Headlands are laid open to the sea, and nature is flattened. We remove the barriers created to serve as the boundaries of nations, and ships are built especially for marble. And so, over the waves of the sea, Nature’s wildest element, mountain ranges are transported to and fro, and even then with the greater justification than we can find for climbing to the clouds in search of vessels to keep our drinks cool, and for hollowing our rocks that almost reach the heavens, so that we may drink from ice. (D. Eichholz).

Plin. *HN* 36.2.6: *Etiamne tacuerunt, maximas earum atque adeo duodequadragenum pedum Lucullei marmoris in atrio Scauri conlocari?*

Were not (the laws) silent also when the largest of those columns, which were each fully 38 feet long and of Lucullean marble, were placed in the hall of Scaurus’ house? (D. Eichholz)

Plin. *HN* 36.2.7: *Iam L. Crassum oratorem illum, qui primus peregrini marmoris columnas habuit in eodem Palatio, Hymettias tamen nec plures sex aut longiores duodenum pedum, M. Brutus in iurgiis ob id Venerem Palatinam appellaverat.*

The orator L. Crassus, having been the first to install, also on the Palatine, columns of foreign marble, columns which were after all merely of Hymettus marble and not more than six in number and more than 12 feet each in length, was in consequence nicknamed by Marcus Brutus the Palatine Venus. (D. Eichholz)


In my opinion, the first specimens of our favourite marbles with their parti-coloured markings appeared from the quarries of Chios when the people of that island were building their walls. Hence the witty remark made at the expense of this work by Cicero. It was their practice to show it as a splendid structure to all their visitors; and
his remark to them was ‘I should be much more amazed if you had made it of stone from Tibur.’ (D.E. Eichholz).


Marcus Lepidus, who was consul with Quintus Catulus, was the very first to lay down door-sills of Numidian marble in his house; and for this he was sharply criticized. He was consul in the 676th year after the founding of the city (78 B.C.) This is the first indication I can find of the importing of Numidian marble. The marble, however, was not in the form of columns or slabs, like the Carystus mentioned above, but came in blocks to be used in the most sordid manner—ad door-sills! Four years after the consulship of this Lepidus came that of Lucius Lucullus, who gave his name, as is evident from the facts, to Lucullian marble. He took a great delight in this marble and introduced it to Rome, although it is in general black and all other marbles are favoured because of their markings or colours. It is found in the island of Chios [reading uncertain, emend as Teos] and is almost the only marble to have derived its name from that of a devotee. (D.E. Eichholz)

**Plin. HN 36.14.70-1:** [70]. Super omnia accessit difficultas mari Romam devehendi, spectatis admodum navibus. Divus Augustus eam quae priorem adixerat miraculi gratia Puteolis perpetuis navalibus dicaverat; incendio consumpta ea est. Divus Claudius aliquot per annos adservatam qua C. Caesar importaverat, omnibus quae umquam in mari visa sunt mirabiliorem, in ipsa turribus Puteolis e pulvere exaedificatis, perductam Ostiam portus gratia mersit. Alia ex hoc cura navium quae Tiberi subvehant, quo experimentu patuit non minus aquarum huic annis esse quam Nilo. [71]. Is autem obeliscus quem divus Augustus in circo magno statuit excisus est a rege Psemettepshrea, quo regnante Pythagoras es Aegypto fuit, LXXXV pedem et dodrantis praeter basim eiusdem lapidis; is vero, quem in campo Martio, novem pedibus minor, a Sesothide. Inscripti ambo rerum naturae interpretationem Aegyptiorum philosophia continet.

Above all, there came also the difficult task of transporting obelisks to Rome by sea. The ships used attracted much attention from sightseers. That which carried the first of two obelisks was solemnly laid up by Augustus of Revered Memory in a permanent dock at Puteoli to celebrate the remarkable achievement; but later it was destroyed by fire. The ship used by the Emperor Gaius for bringing a third was carefully preserved for several years by Claudius of Revered Memory; for it was the most amazing thing that had ever been seen at sea. Then caissons made of cement were erected in its hull at Puteoli; whereupon it was towed to Ostia and sunk there by order
of the emperor, so to contribute to his harbor-works. Then there is another problem, that of providing ships that can carry obelisks up the Tiber; and the successful experiment shows that the river has just as deep a channel as the Nile. [71] The obelisk placed by Augustus of Revered Memory in the Circus Maximus was cut by King Psemetnepserpheus, who was reigning when Pythagoras was in Egypt, and measures 85 feet and 9 inches (25.39 m), apart from its base, which forms part of the same stone. The obelisk in the Campus Martius, however, which is 9 feet less, was cut by Sesothis. Both have inscriptions comprising an account of natural science according to the theories of the Egyptian sages. (D.E. Eichholz).

Plin. HN 36.24.114-5: (Marcus Scaurus) in aedilitate hic sua fecit opus maximum omnium quae umquam fuere humanu manu facta, non temporaria mora, verum etiam aeterinitatis destinatione. Theatrum hoc fuit; scaena ei triplex in altitudinem CCCCLX columnarum in ea civitate quae sex Hymentias non tulerat sine probro civis amplissimi. Ima pars scaenae e marmore fuit, media e vitro, inaudito etiam postea genere luxuriae; summa e tabulis inauratis; columnae, ut diximus, imae duodequadragenum pedum. (Marcus Scaurus) as aedile he constructed the greatest of all the works ever made by a man, a work that surpassed not merely those erected for a limited period but even those intended to last for ever. This was his theatre, which had a stage arranged in three storeys with 360 columns; and this, if you please, in a community that had not tolerated the presence of six columns of Hymettus marble without reviling a leading citizen. The lowest storey of the stage was of marble, and the middle one of glass (an extravagance unparalleled even in later times), while the top storey was made of gilded planks. The columns of the lowest storey were, as I have stated, each 38 feet high. (D.E. Eichholz).

Plut. Alex. 34.2: ἐπέμψε δὲ καὶ Κροττώνιάταις εἰς Ἰταλίαν μέρος τῶν λαφύρων, τὴν Φαύλλου τοῦ ἄθλου τιμῶν προθυμίαν καὶ ἀρετήν, δός περὶ τὰ Μηδικὰ τῶν ἄλλων Ἰταλιωτῶν ἀπεγνωκότων τῶν Ἐλλήνων ἰδιόστολον ἔχων ναῦν ἐπέλευσεν εἰς Σαλαμῖνα, τοῦ κυνῆσιν τι μεθέξων.

He [Alexander] sent also to the people of Croton in Italy a portion of the spoils, honouring the zeal and valour of their athlete Phayllus, who, in the Median wars, when the rest of the Greeks in Italy refused to help their brother Greeks, fitted out a ship at his own cost and sailed with it to Salamis, that he might have some share in the peril there. (B. Perrin).

Plut. Pomp. 24.6: τῶν δὲ ἄσυλων καὶ ἄβατων πρότερον ἱερῶν ἐξέκουσαν ἐπιώντες [...] τῆς δὲ Ἰῆρας τὸν ἐν Σάμῳ, τὸν ἐν Ἀργείᾳ, τὸν ἐπὶ Λακινίῳ.

Besides, they [the pirates] attacked and plundered places of refuge and sanctuaries hitherto inviolate, such as [...] those of Hera at Samos, at Argos, and at Lacinium. (B. Perrin).
Plut. Vit. Cat. Mai. 21.5: ‘Απτόμενος δὲ συντονώτερον πορισμοῦ τὴν μὲν γεωργίαν μάλλον ἥγετο διαγωγὴν ἢ πρόσοδον, εἰς δ’ ἄσφαλή πράγματα καὶ βέβαια κατατίθεμεν τὰς ἀφορμὰς ἐκτάτο λίμνας ὑδάτα θερμά, τόπους κιναφεύγων ἀνειμένους, ἔργα πίσσια, χώραν ἔχουσαν αὐτοφυές νομᾶς καὶ ὕλας, ἀδικῶν αὐτῷ χρήματα προσήκει πολλὰ μηδ’ ὑπὸ τοῦ Διός, ὡς φησιν αὐτὸς, βλαβήναι δυσαμένων.

However, as he (Cato the Elder) applied himself more strenuously to money-getting, he came to regard agriculture as more entertaining than profitable, and invested his capital in business that was safe and sure. He bought ponds, hot springs, districts given over to fullers, pitch factories, land with natural pasture and forest, all of which brought him large profits and “could not”, to use his own phrase, “be ruined by Jupiter.” (B. Perrin).

Polyaenus, Strat. 6.11:
'Αριστείδης Ἐλεάτης Διονυσίῳ πολιορκοῦντι Καυλωνίαν ἐπέλει μετὰ δώδεκα τριήματος, δὲ συνιόδων ἐπικήθη πέντε καὶ δέκα ναῦς πληρώσας.' Αριστείδης ὑποστρέφας ὑποχωρεῖ καὶ νυκτὸς γενομένης ἐκέλευσεν ἁρα τοὺς λαμπτήρας, ὁδὸν τοῦ Διονύσιου νῆς εἰσέπηκεν, μετὰ μικρὸν δὲ τούτους καθελώντες ἐτέρους αὐθηκὼς ἐξ τῆς θαλαττᾶς φελλοῦς μεγάλος ἐφημροσμένος κακὸ τοῦ φωτὸς ἐξ τῶν πλάγιων ἐπιστρέφαντες ἐφθάσαν ἐξ τῆς Καυλωνίας καταπλεύσαντες τῶν περὶ Διονύσιον πρὸς τὴν ἀπὸ τῶν φελλῶν αὐγῆν πλανωμένων.

Aristeides from Elea sailed with 12 triremes to fight Dyonisus who was besieging Caulonia. When Dyonisus saw him, he sailed against him with 15 ships. Aristeides then withdrew his ships and when night came, gave the order to raise the ships’ lanterns to have Dyonisus’ ships following them. After a while, he lowered them and dropped some at sea on some floating cork devices. After having done so, he sailed towards Caulonia’s landing place arriving earlier than Dyonisus’ men, who were still following the light coming from the floating devices. (D. Bartoli)

Polyb. 3.33.18: ἦμεῖς γὰρ εἰρύστες ἐπὶ Λακινῷ τὴν γραφήν ταύτην ἐν χαλκῷ τατεταγμένην ὑπ’ Ἀσιαίου, καθ’ οὕς καιροὺς ἐν τοῖς κατὰ τὴν Ιταλίαν τόποις ἀιστρέφοτα, πάντως ἐνομίσαμεν αὐτὴν περὶ γε τῶν τοιούτων ἀξιόπιστον εἶναι διὸ καὶ κατακλούθειν εἰλόμεθα τῇ γραφῆς ταύτῃ.

I myself found on Lacinium a bronze tablet, which Hannibal had caused to be inscribed with these particulars when he was in Italy; and holding it to be an entirely trustworthy authority for such facts, I did not hesitate to follow it. (E.S. Shuckburgh).

Polyb. 3.56.4:
tέλος δὲ τὴν μὲν πάσαν πορείαν ἐκ Καινῆς πόλεως ἐν πέντε μηδ’ ποιησάμενος ἢ δὲ τῶν Ἀλπῶν ὑπερβολὴν ἡμέρας δεκαεπέντε κατήρη τομηρῶς εἰς τὰ περὶ τὸν Πάνον πεδία καὶ τὸ τῶν Ἰμπόμβρων ἔθνος, ἐχων τὸ διασφαξόμενον μέρος τῆς μὲν τῶν Διβυῶν δυνάμεως πεζοῦσ μυρίου καὶ δυσχιλίους, τῆς δὲ τῶν Ἡβρῶν εἰς ὀκτακισχιλίους, ἱππεῖς δὲ τῶν πάντως ὀυ πλείους ἔξακισχιλίων, ὡς αὐτὸς ἐν τῇ στήλῃ τῇ περὶ τοῦ πλῆθους ἐχούσῃ τὴν ἐπιγραφήν ἐπὶ Λακινῷ διασαφεί.
The whole march from New Carthage had occupied five months, the actual passage of the Alps fifteen days, and he now boldly entered the valley of the Padus, and the territory of the Insubres, with such of his army as survived, consisting of twelve thousand Libyans and eight thousand Iberians, and not more than six thousand cavalry in all, as he himself distinctly states on the stelae erected on the promontory of Lacinium to record the numbers. (E.S. Shuckburgh).

Porph. Pyth. 56: Πυθαγόρας δὲ καταστομιένων τῶν φίλων τὸ μὲν πρῶτον εἰς Καυλωνίαν τὸν ὄρμον σωθήμα, ἔκειθεν δὲ πάλιν ἐς Λοκρούς, πυθομένους δὲ τὸ ὄνος Λοκρούς τῶν γερόντων τιμᾶς ἐπὶ τὰ τῆς χώρας δρία ἀποστείλα.

Pythagoras then, after his friends had been defeated, first looked for shelter in the small anchorage of Caulonia, and then from there in Locri. (D. Bartoli).

P Panopolis 2, 43-50:

Aurelius Isidorus, Procurator of the Lower Thebaid, to the Strategi of the Procuratorial district, greeting. Since the ten state ships being sent to Syene for the transport down river of the columns are insufficient to carry all of them, and since their transportation is most urgent, it has become necessary that other ships should be sent to take the remaining columns on board and bring them down to Alexandria. If these ships do not receive sufficient assistance from the winds, ….., they will exceed the time limit by which the columns must be brought to Alexandria, especially as the fall in the level of the water is increasing daily. Let everyone of you, therefore, considering the absolute necessity of this task, display his own zeal, and while the ships are going up river, whenever they are not propelled by the winds, give his personal attention to seeing that they are towed by their crews and the inhabitants of the villages of the river ports, and hand them over to the next Strategus. And let each of you give receipts whenever the ships reach the boundaries of his nome, and take the same when he hands them over.
This instruction, accompanied by copies of the receipts to be given and those already given I have appended to my letter, so that the zeal of each one of you for the divine command may be more clearly manifested. I bid you farewell, for many years. Year 16/15/8, Mecheir 2nd. (T.C. Skeat).

Ps. Skyl. 14: Ἀπὸ γὰρ Ἡργίου πόλεις εἰσὶν αἰδέ: Λυκροῖ, Καυλωνία, Κρότων, Λακίνου εἰρόν Ἡρᾶς, καὶ νῆσος Καλυφώνης, ἐν Ἔος Ὀδυσσεὺς ὥσπερ πάρα Καλυφών· καὶ ποταμὸς Κράθης καὶ Σύβαρις, καὶ Θουρία πόλις. Οὕτωι ἐν τῇ Λευκανίᾳ.

From Rhegium the cities are the following: Locri, Caulonia, Croton, the Lacinium Promontory sacred to Hera, and the island of Calypso, in which Odysseus dwelt with Calypso, and the river Cratis and Sybaris and the city of Thurii. These are the Greeks in Lucania. (D. Bartoli).

Strabo 6.1.4: ἔστι δ’ αὐτὸς ὁ ἱσθήμος ἐκατόν καὶ ἐξήκοντα στάδιοι μεταξὺ δυῶν κόλπων, τοῦ τε Ἰππωνιατοῦ, δι’ Ἀντιοχοῦ Ναπητινοῦ ἐiciaryκαι, καὶ τοῦ Σκυλλήτικοῦ.

The isthmus itself, one hundred and sixty stadia in width, lies between two gulfs – the Hipponiate (which Antiochus has called Napetine) and the Scylletic. The coasting-voyage round the country comprised between the isthmus and the Strait is two thousand stadia. (H.L. Jones).

Strabo 6.1.11:
Μετὰ δὲ τοῦ Σκυλλήτιον ἡ Κροτωνιάτις χώρα καὶ τῶν Ἰατύγων ἀκραί τρεῖς. μετὰ δὲ ταύτας τοῦ Λακίνου, Ἡρᾶς εἰρόν, πλουσιοῖς ποτε ὑπάρξαν καὶ πολλῶν ἀναστάματων μεστῶν. τὰ διάρρημα δ’ οὐκ ἐυκρινῶς λέγεται· πλὴν ὡς γε ἐπὶ τὸ πολὺ στάδιον ἀπὸ Πορθμοῦ μέχρι Λακινίου Πολύβως ἀποδίδοσι δισχίλιους καὶ τριακισίους, ἐντεύθεν δὲ καὶ διάρμα εἰς ἀκραί Ἰάπυγιαν ἐπτακοσίους. τούτῳ μὲν οὖν στόμα λέγουσι τοῦ Ταραντίνου κόλπου.

After Scylletium comes the territory of the Crotoniates, and three capes of the Iapyges; and after these, the Lacinium, a temple of Hera, which at one time was rich and full of dedicated offerings. As for the distances by sea, writers give them without satisfactory clearness, except that, in a general way, Polybius gives the distance from the Straits to Lacinium as two thousand three hundred stadia, and the distance thence across to Cape Iapygia as seven hundred. This point in called the mouth of the Tarantine Gulf. (H.L. Jones).

Strabo 6.2: ὥστερον μὲν γε καὶ τῆς μεσογαίας πολλῆν αφήνην, ἀπὸ τῶν Τρωικῶν χρόνων ἀρξάμενοι, καὶ δὴ ἐπὶ τοσοῦτον ἡξαντο, ὅστε τὴν μεγάλην Ἐλλάδα ταύτην έλεγον καὶ τὴν Σικέλιαν.

Later on, beginning from the time of the Trojan Wars, took away most of the inner country (from the local inhabitants) and their power grew to such an extent that they called Magna Graecia also Sicily. (D. Bartoli).
Suet. **Aug. 28:** *Urbem neque pro maiestate imperii ornatam et inundationibus incendiisque obnoxiam excoluit adeo, ut iure sit gloriatus marmoream se relinquere, quam latericiam accepiisset.*

Since the city was not adorned at the dignity of the empire demanded, and was exposed to flood and fire, he so beautified it that he could justly boast that he had found it of brick and left it in marble. (J.C. Rolfe.)

Suet. **Jul. 46:** *Multi prodiderunt [...] in expeditionibus tessellata et sectilia pavimenta circumulisse.*

Many have written that [.. Caesar] carried tessellated and mosaic floors about with him on his campaigns. (J.C. Rolfe).

Suet. **Tib. 49.2:** *Plurimis etiam civitatibus et privatis veteres immunitates et ius metallorum ac vectigalium adempta.*

(Tiberius) also took away from many cities and private citizens ancient tax exemptions and the rights to exploit mines and quarries and to collect land rent. (D. Bartoli).

**Thuc. 4.1.1:** *Τοῦ δὲ ἐπιγιγνομένου θέρους περὶ σῖτου ἐκβολῆν Συρακοσίων δέκα ηῆς πλέωσας καὶ Δοκρίδες ἵσα Μεσσήνην τὴν ἐν Σικελίᾳ κατέλαβον.*

The next summer, about the time of the earing of the grain, ten Syracusan and as many Locrian ships sailed to Messene in Sicily and occupied it. (C. Forster Smith).

**Thuc. 6.44.2-3:** *ἀ τὸ τέτε αὐτὸν ἐκ τῆς Κερκύρας ξυνδιέβαλλε τὸν Ἰόνιον κόλπον, καὶ προσβαλοῦσα ἡ πᾶσα παρασκευὴ πρὸς τὰ ἄκραν Ἰαπυγίαν καὶ πρὸς Τάραντα καὶ ψις ἐκαστοὶ ἡπόρησαν, παρεκομιζοῦντο τὴν Ἰταλίαν, τῶν μὲν πόλεων οὐ δεχομένων αὐτοὺς ἀγορὰ όυδὲ ἀστεῖ, ὡστε δὲ καὶ Ὁμήρω, Τάραντος δὲ καὶ Δοκρίδες οὐδὲ τούτοις, ἐὼς ἀφίκοντο ἐς Ῥήγιον τῆς Ἰταλίας ακρωτηρίου, καὶ ἐνταῦθα ἤδη ἡπροϊθουσαν, καὶ ἐξω τῆς πόλεως, ὡς αὐτοὺς ἔσω ὡς ἐδέχοντο, στρατόπεδον τε κατεσκεύασαν ἐν τῷ τῆς Ἀρτέμιδος ἱερῷ, οὐ αὐτοῖς καὶ ἀγοραν παρέιχοιν, καὶ τὰς ναύς ἀνέλκυσαν ἡποίχασαν.*

All these, at that time, sailed together from Corcyra across the Ionian Gulf. And when the whole armament reached the Iapygian promontory, or Tarentum, or wherever they severally found opportunity to make land, they sailed along the coast of Italy – some of the cities not receiving them with a market nor into the town, though furnishing them with water and anchorage, and Tarentum and Locri not even with these- until they came to Rhegium, a promontory of Italy. There they now assembled, and, as the Rhegians did not admit them within the walls, they pitched a camp outside of the town in the precinct of Artemis, where a market also was provided for them; and so drawing up their ships on shore they took a rest. (C. Forster Smith).

**Thuc. 6.104.2:** *καὶ ὦ μὲν Γόλιππος ἐκ τοῦ Τάραντος ἐς τὴν Θουρίαν πρῶτον πρεσβευσάμενος κατὰ τὴν τοῦ πατρὸς ποτε πολιτείαν καὶ οὐ δυνάμενος αὐτοὺς προσαγαγόσθαι, ἀρας παρέπλει τὴν Ἰταλίαν.*
From Tarentum, Gylippus, after first going on a mission to Thuria, on account of his father having been once a citizen there, and failing to win them over, weighed anchor and sailed along the coast of Italy. (C. Forster Smith).

**Thuc. 7.23.3-6:** Ὅ ὁ δὲ Δημοσθένης καὶ Εὐρυμέδων, ἐτοίμης ἤδη τῆς στρατιάς οὐσίας ἐκ τῆς Κερκύρας καὶ ἀπὸ τῆς ἥπειρου, ἐπεραιώθησαν ξυμπάση τῇ στρατιᾷ τῶν Ἰόνιων ἐπ’ ἄκραν Ἰαπυγίαν· καὶ ὀρμηθέντες αὐτοθέν κατάσχοντες ἐς τὰς Χιοράδας νήσους Ἰαπυγίας, καὶ ἀκοντιστάς τῇ τινα τῶν Ἰαπύγων πεντήκοντα καὶ ἕκατον τοῦ Μεσσαπίου ἐθνοῦς ἀναβιβάζονται ἐπὶ τὰς αὐς ... ἀφικνοῦται ἐς Μεταπόντιον τῆς Ἰταλίας. καὶ τοὺς Μεταποντίους πείσαντες κατά τὸ ἐξωμαχίκον ἀκοντιστάς τῇ ξυμπέμπειν τριακοσίους καὶ τριήμερος δύο καὶ ἀναλαβόντας ταῦτα παρέπλευσαν ἐς Θούριαν. καὶ καταλαμβάνουσι νεωστὶ στάσει τοὺς τῶν Ἀθηναίων ἐναντίους ἐκπεπτωκότας· καὶ βουλόμενοι τῇ στρατιᾷ αὐτοθέν πάσαν ἀθρόισαντες εἰς τ<Tag><I>ε</I>πελέκειπτο ἐξετάσαντες καὶ τοὺς Θούριους πείσαι σφάς ἐξουστρατεύειν τῇ ὁς προθυμότατα καὶ, ἐπειδὴ πρὸ τοῦ τύχης εἰσί, τοὺς αὐτοὺς ἐχθροὺς καὶ φίλους τοῖς Ἀθηναίοις νομίζειν, περιέμενον ἐν τῇ Θούριᾳ καὶ ἐπράσσον ταῦτα.

Demosthenes and Euryomedon, the army being now ready which they had gathered from Corcyra and the mainland, sailed with all their forces across the Ionian Sea to the lapygian promontory. Proceeding from there, they touched at the Choerades, which are islands of lapygia, and they took on board some lapygian javelin-men, one hundred and fifty in number... and they arrived at Metapontum in Italy. There they persuaded the Metapontines to send with them, in accordance with the terms of their alliance, three hundred javelin-men and two triremes, and taking up these they sailed along the coast to Thuria. At Thuria they found that the faction opposed to the Athenians had recently been expelled in a revolution; and as they were desirous, after collecting their whole armament at that place, to hold a review of it, on the chance that anyone had been left behind, and also to persuade the Thurians both to take part with them in the expedition with all zeal and, in view of the Athenian’s present good fortune, to regard the same persons foes and friends as the Athenians did, they waited at Thuria and dealt with these matters. (C. Forster Smith).

**Thuc. 7.25.1-2:** Ὅ ὁ δὲ Δημοσθένης καὶ Εὐρυμέδων, ἐπειδὴ ἐξουστρατεύειν αὐτοῖς οἱ Θούριοι παρεσκευάσθησαν ἐπτακοσίας μὲν ὀπλίταις, τριακοσίας δὲ ἄκο ὀπλίταις, τὰς μὲν ναῦς παραπλεῖν ἐκέλευσον ἐπὶ τῆς Κρωτωικάτης, αὐτοὶ δὲ τὸν πεζὸν πάντα ἐξετάζοντες πρῶτον ἑπὶ τῷ Συβάρει ποταμῷ ἤγουν διὰ τῆς Θουρίδος ὑγῆς· καὶ ἦς ἐγένοντες ἐπὶ τῷ Ὡλιῷ ποταμῷ καὶ αὐτοῖς οἱ Κρωτωικάται προσπεμφάντες εἶπον οὐκ ἂν σφίζῃ βουλομένοις εἰναι διὰ τῆς γῆς σφῶν τοῦ στρατοῦ ἤνα, ἐπικαταβάντες ἡλίσαντο πρὸς τὴν βάλασαν καὶ τὴν ἐκβολήν τοῦ Ὡλίου· καὶ αἱ ἴδες αὐτοῖς ἔγγα τοῦ ἀπήντων. τῇ δ’ ὑστεραίαν ἀφιβασάμενοι παρέπλετες, ἵσχοντες πρὸς τάς πόλεις πλὴν Λοκρῶν, ἔως ἀφίκοντο ἐπὶ Πέτραν τῆς Ρηγίνης.

Demosthenes and Eurymedon, when the Thurians had been induced to join in the campaign with them with seven hundred hoplites and three-hundred javelin-men, gave orders that the ships should sail along the coast toward the territory of Croton, while they themselves, after first reviewing all their land forces at the river Sybaris, advanced through
the territory of Thuria. And when they came to the river Hylias and the Crotoniates sent
word to them that their army could not go through their territory with their consent, they
went down and bivouacked near the sea at the mouth of the Hylias; and their ships met
them at that point. On the next day they embarked their army and proceeded along the
coast, touching at the various cities, with the exception of Locri, until they reached Petra in
the territory of Rhegium. (C. Forster Smith).

Thuc. 7.25.2-3: καὶ ἔξολα ναυπηγήσιμα ἐν τῇ Καυλωνιάτιδι κατέκαυσαν,
ἀ τοῖς Ἀθηναίοις ἔτοιμα ἦν. ἔς τε Λοκρούς μετὰ ταῦτα ἤλθον, καὶ ὀρμοῦσων
αὐτῶν κατέπλευσε μία τῶν ὀλκάδων τῶν ἀπὸ Πελοποιηήσου ἄγουσα Θεσπιῶν
ὀπλίτας.

And they (the Spartans) also burned some timber in the territory of Caulonia which
was lying there ready for the Athenians to use in ship-building. After this they went to
Locri, and while they were lying there at anchor, one of the merchant-ships that had sailed
from the Peloponnese arrived in port, bringing some Thespian hoplites.
(C. Forster Smith).

Thuc. 8.35.1: Ἐκ δὲ τῆς Πελοποιηήσου τοῦ αὐτοῦ χειμῶνος Ἰπποκράτης
ὁ Λακεδαιμόνιος ἐκπλέωσας δέκα μὲν Ῥωμαίας ναυσίν...

During the same winter Hippocrates the Lacedaemonian sailed from the
Peloponnese with ten Thurian ships… (C. Forster Smith).

Thuc. 8.91.2: ἀμα γὰρ καὶ ἐκ τῆς Πελοποιηήσου ἑτύγχανον Εὐβοέων
ἐπικαλούμενων κατὰ τῶν αὐτῶν χρόνων τούτων δῶ καὶ τεσσαράκοντα νῆσις,
ὡς ἦσαν καὶ ἐκ Τάραντος καὶ ἐκ Λοκρῶν 'Ιταλιώτιδες καὶ Σικελιαὶ τινες, ὁμοῦσα
αἱ ἡδῆ ἐπὶ Λά τῆς Λακωνιηῆς...

For at this very time it so happened that, on the invitation of the Euboeans, ships
from the Peloponnese to the number of forty-two, among which were Italian vessels from
Tarentum and Locri and some from Sicily, were already lying off Las in Laconia. (C.
Forster Smith).

Val. Max. Facta et Dicta Memorabilia 8.7.2: [Pythagoras] in Italiae etiam partem, quae
nunc maior Graecia appellabatur, perrexit, in qua plurimis et opulentissimis urbis
effectus studiorum suorum adprobavit.

Pythagoras proceeded also in that area of Italy, that at that time was called Greater
Greece, in which he proved the good effects of his studies in many and rich cities.
(D. Bartoli).

Veg. Mil. 4.39: Quibus mensibus tutius navigetur. Sequitur mensum dierumque tractatus.
Neque enim integro anno vis atque acerbitas maris patitur navigantes, sed quidam mens
aptissimi, quidam dubii, reliqui classibus intractabiles sunt leges naturae. Pachnitaie
decurso, id est post ortum Pleiadum, a die VI kal. Iunias usque in Arcturi ortum, id est in
diem VIII decimum kal. Octobres, secura navigatio creditur, quia aestatis beneficio
ventorum acerbitas mitigatur; post hoc tempus usque in tertium idus Novembres incerta
navigatio est et discrimini proprius propterea, quia post idus Septembres oritur Arcturus,
vehementissum sidus. Et VIII kal. Octobres aequinoctialis evenit acerba tempestas, circa nonas vero Octobres aeduli pluviales, V idus easdem Taurus. A Novembri autem mense crebris tempestatibus navigia conturbat Vergiliarum hiemalis occasus. Ex die igitur tertio idus Novembres usque in diem sextum idus Martias maria clauduntur. Nam lux minima noxque prolixa, nubium densitatis, aeris obscuritas, ventorum imbri vel nivibus geminata saevitia non solum classes a pelago sed etiam commeantes a terrestri itinere deturbat. Post natalem vero, ut ita dicam, navigationis, qui sollemni certamine publicoque spectaculo multarum urbium celebratur, plurimorum siderum ipsiusque ratione usque in idus Maias periculose maria temptantur, non quo negotiorum cesset industria, sed quia maior adhibenda cautela est, quando exercitus navigat cum liburnis, quam cum privatorum mercium festinat audacia.

In what months it is safer to be at sea. The analysis of the months and days follows. The roughness of the sea does not allow to sail for the entire year. Some months are the most favorable, others are dangerous, the remaining ones are too dangerous for the ships due to the laws of nature.

Past Pachnitae—in other words after the constellation of the Pleiads has risen— from May 27 until the rise of Arcturus—in other words September 14—it is safe to be at sea, because the strength of the winds is mitigated by the grace of the summer.

After this time and until November 10 it is not safe to be at sea. The length of the day is shorter because after September 13 Arcturus rises, baleful star, and on September 24 the unpleasant equinoctial season begins. Around October 7 the winds carriers of rain come, and on the 15th day of the same month the constellation of Taurus rises.

During the month of November, on the other hand, the winter disappearance of the Pleiads causes trouble to the ships because of the heavy rain. Therefore, from November 10 until March 10 the sea is inaccessible. The short daylight, the length of the night, the thickness of the clouds, the darkness of the air, and the strength of the winds twice as destructive due to the rain and to the snow, not only keeps the ships away from the sea, but also the travelers from a terrestrial trip.

After the day—so to speak—navigation was born, that is celebrated in several cities according to the position of the stars and time of the year with public games and races, until May 15, the sea can be sailed at the sailors’ own risk. It is not necessary to stop the trade of merchandises, but, since the fleet uses liburnian ships, it is necessary to be more careful than private merchants usually are. (L. Campana).

**Verg. Aen. 3.551-3:** Hinc sinus Herculei (si vera est fama) Tarenti / cernitur; attolit se diva Lacinia contra, / Caulonisque arces et navifragium Scylaceum.

Next is descried the bay of Tarentum, a town of Hercules, if the tale be true; while over against it rise the Lacinian goddess, the towers of Caulon and the shipwrecking Scylaceum. (H. Rushton Fairclough).

**Verg. Aen. 12.715-7:** Ac velut ingenti Sila summove Taburno / cum duo conversis inimica in proelia tauri / frontibus incurritur…

And as on the mighty Sila or on Taburnus’ height two bulls charge, brow to brow, in mortal battle… (H. Rushton Fairclough).
**Verg. G. 3.219**: *Pascitur in magna Sila formosa iuvenca.*  
The beautiful heifer grazes in the great Sila. (D. Bartoli).

**Vitr. De arch. 2.8.10**: *Item Halicarnasso potentissimi Regis Mausoli domus, cum Proconnesio marmore omnia haberet ornata, parietes habet latere structos.*  
At Halicarnassus also, although the palace of the mighty king Mausolus had all parts finished with Proconnesian marble, it has walls built of brick. (F. Granger).

**Vitr. De arch. 10.2.15**: *Pixodarus fuerat pastor. Is in his locis versabatur. Cum autem cives Ephesiorum cogitarent fanum Dianae ex marmore facere decernerentque, a Paro, Proconneso, Heraclea, Thaso uti marmor peteretur, propulsis ovibus Pixodarus in eodem loco pecus pascebat, ibique duo arietes inter se concurrentes alius alium praeterierunt et impetu facto unus cornibus percussit saxum, ex quo crusta candidissimo colore fuerat deiecta. Ita Pixodarus dicitur oves in montibus reliquisse et crustam cursim Ephesum, cum maxime de ea re ageretur, detulisse. Ita statim honores decreverunt ei et nomen mutaverunt: pro Pixodaro Euangelus nominaretur. Hodieque quotmensibus magistratus in eum locum proficiscitur et ei sacrificium facit, et si non fecerit, poena tenetur.*  
Pixodarus was a shepherd who lived in this neighborhood. Now when the citizens of Ephesus planned to build a temple of marble and decided to obtain marble from Paros, Proconnesus, Heraclea, and Thasos, Pixodarus was driving his sheep and was pasturing them in the same place. And there two rams, butting together, overran one another, and, in the rush, one of them struck a rock with his horns and a chip of the whitest color was thrown down. So Pixodarus is said to have left his sheep on the hills and to have run with the chip of marble to Ephesus at the time when there was a great discussion about the matter. Thus the citizens decreed him divine honors and changed his name: instead of Pixodarus he was to be named Evangelus. And to this day every month the magistrate sets out to that place and sacrifices to Evangelus. If he omits to do so he is subject to a penalty. (F. Granger).
APPENDIX 4

DIOCLETIAN’S EDICT ON MAXIMUM PRICES

Documentary evidence is of great importance for reconstructing the actual names, provenience quarries, and monetary values of marble. Nineteen different types of marble traded during the Late Empire are recorded in Diocletian’s *Edict on Maximum Prices* (A.D. 301). In an attempt to stop the rampaging inflation that was quickly undermining the empire’s economy, the Edict fixed by law the prices that could be asked for all kinds of merchandise, from dried beans and watermelons to the salaries of architects and lawyers.

The fact that marble is included in the list suggests that it was a heavily-traded commodity, and that despite the state-controlled quarries there was a free market outside of imperial control where prices were based on the laws of supply and demand.

Strangely enough, the Edict omits the names of marbles extremely popular in antiquity like Pentelic from Attica, Naxian, Parian, and Tean, or the marble from Luna with which so many monuments of Rome were built. It is difficult to understand why. Perhaps the varieties not included had a much smaller market, but it is hard to imagine how Egyptian red porphyry, the Imperial stone par excellence, could be more widespread than Parian or Pentelic. The only possible, and not completely satisfactory answer is that the Edict was written in Constantinople, and included the marble varieties used most frequently in the eastern regions of the Empire. Maybe only the qualities that were most

widely used in Byzantium made the list, even though this interpretation contradicts the universal value of the Edict for all the territories of the Empire.

Table 23 offers a synopsis of the marbles mentioned in the Edict, their ancient and modern names, and the cost per Roman foot (1 Roman foot = 0.296 m). It is generally assumed that the cost was calculated in cubic feet. Recent evidence gathered by S. Corcoran and J. DeLaine, however, suggests that the square foot is more likely. Table 23 demonstrates that the navis lapidaria which sank at Punta Scifo A was carrying marbles that ranked among the most expensive and the cheapest varieties mentioned in the Edict: *pavonazzetto* from Docimium valued at 200 denarii/R.ft., and Proconnesian from the Marmara Island for a fifth of that price: 40 denarii/R.ft. The column shafts located in Capo Cimiti, made of *cipollino* from Euboea, were priced at 100 denarii/R.ft.

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323 For a comparison between ancient and modern names, marble production centers, and a detailed description of each variety, see: Borghini 2001, 132-295; Erim, Reyn.
324 Corcoran and DeLaine 1994, 263-73. P. Pensabene assumes a cubic foot in his calculations for the cost of the Punta Scifo A cargo (Pensabene 1978a, 113). The same assumption is made by M. Giaccher (Giacchero 1974, 30-46) and P. Barresi (Barresi 2002, 75-6).
Table 23. The marbles mentioned in Diocletian’s Edict: ancient and modern names, region of provenience, cost in denarii per Roman foot.

<table>
<thead>
<tr>
<th>Marble Name (Ancient)</th>
<th>Marble Name (Modern)</th>
<th>Provenience</th>
<th>Denarii /R.ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Porfyritici</td>
<td>Red porphyry</td>
<td>Gebel Dokhan, Egypt</td>
<td>250</td>
</tr>
<tr>
<td>2 Lacedaemonii</td>
<td>Serpentino</td>
<td>Krokeai, Greece</td>
<td>250</td>
</tr>
<tr>
<td>3 Numidici</td>
<td>Giallo antico</td>
<td>Chemtou, Tunisia</td>
<td>200</td>
</tr>
<tr>
<td>4 Lucullei</td>
<td>Africano</td>
<td>Teos, Turkey</td>
<td>150</td>
</tr>
<tr>
<td>5 Pyrrhopoicili</td>
<td>Red granite</td>
<td>Aswan, Egypt</td>
<td>100</td>
</tr>
<tr>
<td>6 Claudiani</td>
<td>Granito del Foro</td>
<td>Gebel Fatireh, Egypt</td>
<td>100</td>
</tr>
<tr>
<td>7 Alabastreni</td>
<td>Alabastro cotognino</td>
<td>Egypt</td>
<td>75</td>
</tr>
<tr>
<td>8 Docimeni</td>
<td>Pavonazzetto</td>
<td>Iscehisar, Turkey</td>
<td>200</td>
</tr>
<tr>
<td>9 Euthydemiani</td>
<td>Unnamed</td>
<td>Unknown</td>
<td>60</td>
</tr>
<tr>
<td>10 Anacasteni</td>
<td>Unnamed</td>
<td>Asia Minor?</td>
<td>40</td>
</tr>
<tr>
<td>11 Tripontici</td>
<td>Occhio di pavone</td>
<td>Nicomedia, Turkey</td>
<td>75</td>
</tr>
<tr>
<td>12 Thessalici</td>
<td>Verde antico</td>
<td>Thessaly, Greece</td>
<td>150</td>
</tr>
<tr>
<td>13 Carusti</td>
<td>Cipollino</td>
<td>Euboea, Greece</td>
<td>100</td>
</tr>
<tr>
<td>14 Scyriani</td>
<td>Breccia di Sciro</td>
<td>Skyros, Greece</td>
<td>40</td>
</tr>
<tr>
<td>15 Heracleotici</td>
<td>Heracleian</td>
<td>Bafa Gölü, Turkey</td>
<td>75</td>
</tr>
<tr>
<td>16 Lesbi</td>
<td>Bigio Antico</td>
<td>Lesbos, Greece</td>
<td>40</td>
</tr>
<tr>
<td>17 Thassi</td>
<td>Thasian</td>
<td>Thasos, Greece</td>
<td>50</td>
</tr>
<tr>
<td>18 Proconnesi</td>
<td>Proconnesian</td>
<td>Marmara, Turkey</td>
<td>40</td>
</tr>
<tr>
<td>19 Potomogalleni</td>
<td>Lithos Sangarios?</td>
<td>Bilecik, Turkey</td>
<td>40</td>
</tr>
</tbody>
</table>

\[325\] Ward-Perkins 1992b, 61, n.4.
Roman quarry inscriptions follow a highly-standardized marking system. Therefore, it is easy to provide the basic elements that were inscribed on the surfaces of marble blocks and column shafts: only a limited number of words were used, often combined together to in a kind of standard pattern.

First of all, it appears that there are three different sets of inscriptions: those carved immediately after the block or column shaft had been extracted from the bedrock, another made just before the items were shipped to their destinations, and the final inscription made upon receipt. In a certain way, quarry-inscriptions had to record the “production pedigree” of each item, specifying the year of production, the owner, the officer in charge of a given quarry, the engineer who supervised the operations, and even the team that cut that particular artifact in a specific location at the quarry. The probator, a specialist in assessing marble imperfections, granted the final approval of quality control, marking his approval with the letter P(robatum,) or rejection with REP(robatum).

325 Sometimes a stricken-through R can also be found for R(ecensitum), meaning that the item had been reviewed and approved for trade.326

The first element that often appears on blocks and column shafts was the title CAES, which can have two completely different meanings. On one hand, if interpreted as CAES(aris), it could mean “belonging to Caesar.” As J. C. Fant pointed out, the Emperor

325 Pensabene 1998a, 359.
326 Pensabene 1998a, 359.
was called “Caesar” rather than “Augustus” when he was referred to as a private citizen, and not as Head of State. Therefore, one can deduce that some quarries belonged to the Emperor’s personal possessions, and were outside of public control.\textsuperscript{327} On the other hand, the letters CAES could also mean CAES(ura), the highly-trained “cutting team” that knew how to follow the natural grain of the bedrock and cut it free of imperfections that might compromise a stone when put to use.

A number of abbreviations is frequently found on blocks of marble coming from the quarries of Teos \textit{(africano)}, Simitthus \textit{(giallo antico)}, Carystos \textit{(cipollino)}, Chios \textit{(portasanta)} and on Parian white marble used for sculptures.\textsuperscript{328} The timeframe for their use was from A.D. 64 until A.D. 236, after which they are no longer quarried.\textsuperscript{329} The following initials are normally found:

- N(umerus): the shipping number of the block or column shaft itself.
- EX RATIONE followed by the name of the quarry’s contractor, usually an Imperial slave: “Credited to the account of…” , used from the age of Vespasian onwards.\textsuperscript{330}
- SUB CURA: meaning “under the supervision of…”;
- CAES\textit{(aris)}: identifies the imperial ownership of the marble item;

\textsuperscript{327} Fant 1993, 83.  
\textsuperscript{328} Pensabene 2002a, 19.  
\textsuperscript{329} An inscription \textit{possibly} dated to Marcus (Licinius?) Crassus’ consulship might provide the year 64 A.D. as \textit{terminus post quem} for the introduction of quarry-marks. A block of \textit{giallo antico} found in Rome and recorded by L. Bruzza in 1870 has the inscription: M. CRASSO COS EX R LAE / NCCCXCIIX (opposite side). Trans: “Under the consulship of Marcus Crassus, (this block) was credited to the account of Laetus. Number 398.” (Bruzza 1870, 187, n. 220.) List of consuls from: Degrassi 1952, 17.  
\textsuperscript{330} Pensabene 1998a, 358.
• CAES(ura) followed by the name of the supervisor of the workers who cut the piece of marble;

• OFF(icina) followed by the name of the director of the “workshop” that received the rough item from the team mentioned in the caesura;

• LOC(o) followed by a numeral indicating the marble’s vein from which the rough block was carved;

• BRACC(hium) followed by a numeral registering the quarry’s sector from which the block came;

• CO(n)S(uls): the name of the two consuls in charge in the year of production.

• COM(missura?): the actual reading and meaning of this abbreviation remain unknown.

For only two centuries, from the Flavian to the Severan ages, it was thought necessary to carve complex inscriptions at some quarries, probably to mark the owners’ names and to inventory the number of items produced in a given year at a given location. These inscriptions disappear after A.D. 236.
VITA

Dante Giuliano Bartoli

Address: Texas A&M University
        201 Anthropology Bldg.
        College Station, TX, 77843
        USA

Email Address: dante.bartoli@gmail.com

Education:

1999   B.A. in Classical Literature – Università Statale, Milano (Italy).

2008   Ph.D. in Anthropology – Texas A&M University.

Archaeological Fieldwork Experience:

2006   Western Greek Colonies Underwater Project, Italy. Director.

2005   Locri Epizephiri II Underwater Survey, Italy. Director.

2005   Kizilburun Underwater Excavation, Turkey. Excavation of a first-century
        B.C. Roman navis lapidaria. Participant (director: Dr. Deborah N. Carlson).

2004   Locri Epizephiri I Underwater Project, Italy. Director.

2003   Kaulon 2003 Underwater Project, Italy. Director

Professional Experience:

2008-present   Director, US-Italy Research Programs. ProMare, Inc.

2002-present   Research Associate, Institute of Nautical Archaeology.

2004-2005     Lecturer. Department of Modern and Classical Languages,
               Texas A&M University.

2002-2006     Graduate Research Assistant. Texas A&M University.


1999-2000     Private; Italian Army's Artistic Heritage Special Unit. Italy.