

Roman Monolithic Fountains and Thasian Marble

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CONTENT

PRESENTATION	15
NECROLOGY: NORMAN HERZ (1923-2013) by Susan Kane	17
1. APPLICATIONS TO SPECIFIC ARCHEOLOGICAL QUESTIONS – USE OF MARBLE	
Hermaphrodites and Sleeping or Reclining Maenads: Production Centres and Quarry Marks <i>Patrizio Pensabene</i>	25
First Remarks about the Pavement of the Newly Discovered Mithraeum of the Colored Marbles at Ostia and New Investigations on Roman and Late Roman White and Colored Marbles from Insula IV, IX <i>Massimiliano David, Stefano Succi and Marcello Turci</i>	33
Alabaster. Quarrying and Trade in the Roman World: Evidence from Pompeii and Herculaneum <i>Simon J. Barker and Simona Perna</i>	45
Recent Work on the Stone at the Villa Arianna and the Villa San Marco (Castellammare di Stabia) and Their Context within the Vesuvian Area <i>Simon J. Barker and J. Clayton Fant</i>	65
Marble Wall Decorations from the Imperial Mausoleum (4 th C.) and the Basilica of San Lorenzo (5 th C.) in Milan: an Update on Colored Marbles in Late Antique Milan <i>Elisabetta Neri, Roberto Bugini and Silvia Gazzoli</i>	79
Sarcophagus Lids Sawn from their Chests <i>Dorothy H. Abramitis and John J. Herrmann</i>	89
The Re-Use of Monolithic Columns in the Invention and Persistence of Roman Architecture <i>Peter D. De Staebler</i>	95
The Trade in Small-Size Statues in the Roman Mediterranean: a Case Study from Alexandria <i>Patrizio Pensabene and Eleonora Gasparini</i>	101
The Marble Dedication of Komon, Son of Asklepiades, from Egypt: Material, Provenance, and Reinforcement of Meaning <i>Patricia A. Butz</i>	109
Multiple Reuse of Imported Marble Pedestals at Caesarea Maritima in Israel <i>Barbara Burrell</i>	117
Iasos and Iasian Marble between the Late Antique and Early Byzantine Eras <i>Diego Peirano</i>	123

Thassos, Known Inscriptions with New Data <i>Tony Kozelj and Manuela Wurch-Kozelj</i>	131
The Value of Marble in Roman <i>Hispalis</i> : Contextual, Typological and Lithological Analysis of an Assemblage of Large Architectural Elements Recovered at N° 17 Goyeneta Street (Seville, Spain) <i>Ruth Taylor, Oliva Rodríguez, Esther Ontiveros, María Luisa Loza, José Beltrán and Araceli Rodríguez</i>	143
<i>Giallo Antico</i> in Context. Distribution, Use and Commercial Actors According to New Stratigraphic Data from the Western Mediterranean (2 nd C. Bc – Late 1 st C. Ad) <i>Stefan Ardeleanu</i>	155
<i>Amethystus</i> : Ancient Properties and Iconographic Selection <i>Luigi Pedroni</i>	167
2. PROVENANCE IDENTIFICATION I: (MARBLE)	
Unraveling the Carrara – Göktepe Entanglement <i>Walter Prochaska, Donato Attanasio and Matthias Bruno</i>	175
The Marble of Roman Imperial Portraits <i>Donato Attanasio, Matthias Bruno, Walter Prochaska and Ali Bahadır Yavuz</i>	185
Tracing Alabaster (Gypsum or Anhydrite) Artwork Using Trace Element Analysis and a Multi-Isotope Approach (Sr, S, O) <i>Lise Leroux, Wolfram Kloppmann, Philippe Bromblet, Catherine Guerrot, Anthony H. Cooper, Pierre-Yves Le Pogam, Dominique Vingtain and Noel Worley</i>	195
Roman Monolithic Fountains and Thasian Marble <i>Annewies van den Hoek, Donato Attanasio and John J. Herrmann</i>	207
Archaeometric Analysis of the Alabaster Thresholds of Villa A, Oplontis (Torre Annunziata, Italy) and New Sr and Pb Isotopic Data for <i>Alabastro Ghiaccione del Circeo</i> <i>Simon J. Barker, Simona Perna, J. Clayton Fant, Lorenzo Lazzarini and Igor M. Villa</i>	215
Roman Villas of Lake Garda and the Occurrence of Coloured Marbles in the Western Part of “Regio X Venetia et Histria” (Northern Italy) <i>Roberto Bugini, Luisa Folli and Elisabetta Roffia</i>	231
Calcitic Marble from Thasos in the North Adriatic Basin: Ravenna, Aquileia, and Milan <i>John J. Herrmann, Robert H. Tykot and Annewies van den Hoek</i>	239
Characterisation of White Marble Objects from the Temple of Apollo and the House of Augustus (Palatine Hill, Rome) <i>Francesca Giustini, Mauro Brilli, Enrico Gallochio and Patrizio Pensabene</i>	247
Study and Archeometric Analysis of the Marble Elements Found in the Roman Theater at Aeclanum (Mirabella Eclano, Avellino - Italy) <i>Antonio Mesisca, Lorenzo Lazzarini, Stefano Cancelliere and Monica Salvadori</i>	255

Two Imperial Monuments in Puteoli: Use of Proconnesian Marble in the Domitianic and Trajanic Periods in Campania <i>Irene Bald Romano, Hans Rupprecht Goette, Donato Attanasio and Walter Prochaska</i>	267
Coloured Marbles in the Neapolitan Pavements (16 th And 17 th Centuries): the Church of <i>Santi Severino e Sossio</i> <i>Roberto Bugini, Luisa Folli and Martino Solito</i>	275
Roman and Early Byzantine Sarcophagi of Calcitic Marble from Thasos in Italy: Ostia and Siracusa <i>Donato Attanasio, John J. Herrmann, Robert H. Tykot and Annewies van den Hoek</i>	281
Revisiting the Origin and Destination of the Late Antique Marzamemi 'Church Wreck' Cargo <i>Justin Leidwanger, Scott H. Pike and Andrew Donnelly</i>	291
The Marbles of the Sculptures of Felix Romuliana in Serbia <i>Walter Prochaska and Maja Živić</i>	301
Calcitic Marble from Thasos and Proconnesos in Nea Anchialos (Thessaly) and Thessaloniki (Macedonia) <i>Vincent Barbin, John J. Herrmann, Aristotle Mentzos and Annewies van den Hoek</i>	311
Architectural Decoration of the Imperial Agora's Porticoes at Iasos <i>Fulvia Bianchi, Donato Attanasio and Walter Prochaska</i>	321
The Winged Victory of Samothrace - New Data on the Different Marbles Used for the Monument from the Sanctuary of the Great Gods <i>Annie Blanc, Philippe Blanc and Ludovic Laugier</i>	331
Polychrome Marbles from the Theatre of the Sanctuary of Apollo Pythios in Gortyna (Crete) <i>Jacopo Bonetto, Nicolò Mareso and Michele Bueno</i>	337
Paul the Silentary, Hagia Sophia, Onyx, Lydia, and Breccia Corallina <i>John J. Herrmann and Annewies van den Hoek</i>	345
Incrustations from Colonia Ulpia Traiana (Near Modern Xanten, Germany) <i>Vilma Ruppinić and Ulrich Schüssler</i>	351
Stone Objects from Vindobona (Austria) – Petrological Characterization and Provenance of Local Stone in a Historico-Economical Setting <i>Andreas Rohatsch, Michaela Kronberger, Sophie Insulander, Martin Mosser and Barbara Hodits</i>	363
Marbles Discovered on the Site of the Forum of Vaison-la-Romaine (Vaucluse, France): Preliminary Results <i>Elsa Roux, Jean-Marc Mignon, Philippe Blanc and Annie Blanc</i>	373
Updated Characterisation of White Saint-Béat Marble. Discrimination Parameters from Classical Marbles <i>Hernando Royo Plumed, Pilar Lapeunte, José Antonio Cuchí, Mauro Brillì and Marie-Claire Savin</i>	379

Grey and Greyish Banded Marbles from the Estremoz Anticline in Lusitania <i>Pilar Lapuente, Trinidad Nogales-Basarrate, Hernando Royo Plumed, Mauro Brilli and Marie-Claire Savin</i>	391
New Data on Spanish Marbles: the Case of <i>Gallaecia</i> (NW Spain) <i>Anna Gutiérrez García-M., Hernando Royo Plumed and Silvia González Soutelo</i>	401
A New Roman Imperial Relief Said to Be from Southern Spain: Problems of Style, Iconography, and Marble Type in Determining Provenance <i>John Pollini, Pilar Lapuente, Trinidad Nogales-Basarrate and Jerry Podany</i>	413
Reuse of the <i>Marmora</i> from the Late Roman Palatial Building at Carranque (Toledo, Spain) in the Visigothic Necropolis <i>Virginia García-Entero, Anna Gutiérrez García-M. and Sergio Vidal Álvarez</i>	427
Imperial Porphyry in Roman Britain <i>David F. Williams</i>	435
Recycling of Marble: Apollonia/Sozousa/Arsuf (Israel) as a Case Study <i>Moshe Fischer, Dimitris Tambakopoulos and Yannis Maniatis</i>	443
Thasian Connections Overseas: Sculpture in the Cyrene Museum (Libya) Made of Dolomitic Marble from Thasos <i>John J. Herrmann and Donato Attanasio</i>	457
Marble on Rome's Southwestern Frontier: Thamugadi and Lambaesis <i>Robert H. Tykot, Ouahiba Bouzidi, John J. Herrmann and Annewies van den Hoek</i>	467
Marble and Sculpture at Lepcis Magna (Tripolitania, Libya): a Preliminary Study Concerning Origin and Workshops <i>Luisa Musso, Laura Buccino, Matthias Bruno, Donato Attanasio and Walter Prochaska</i>	481
The Pentelic Marble in the Carnegie Museum of Art Hall of Sculpture, Pittsburgh, Pennsylvania <i>Albert D. Kollar</i>	491
Analysis of Classical Marble Sculptures in the Michael C. Carlos Museum, Emory University, Atlanta <i>Robert H. Tykot, John J. Herrmann, Renée Stein, Jasper Gaunt, Susan Blevins and Anne R. Skinner</i>	501
3. PROVENANCE IDENTIFICATION II: (OTHER STONES)	
Aphrodisias and the Regional Marble Trade. The <i>Scaenae Frons</i> of the Theatre at Nysa <i>Natalia Toma</i>	513
The Stones of Felix Romuliana (Gamzigrad, Serbia) <i>Bojan Djurić, Divna Jovanović, Stefan Pop Lazić and Walter Prochaska</i>	523
Aspects of Characterisation of Stone Monuments from Southern Pannonia <i>Branka Migotti</i>	537

The Budakalász Travertine Production <i>Bojan Djurić, Sándor Kele and Igor Rižnar</i>	545
Stone Monuments from Carnuntum and Surrounding Areas (Austria) – Petrological Characterization and Quarry Location in a Historical Context <i>Gabrielle Kremer, Isabella Kitz, Beatrix Moshhammer, Maria Heinrich and Erich Draganits</i>	557
Espejón Limestone and Conglomerate (Soria, Spain): Archaeometric Characterization, Quarrying and Use in Roman Times <i>Virginia García-Entero, Anna Gutiérrez García-M, Sergio Vidal Álvarez, María J. Peréx Agorreta and Eva Zarco Martínez</i>	567
The Use of Alcover Stone in Roman Times (<i>Tarraco, Hispania Citerior</i>). Contributions to the <i>Officina Lapidaria Tarraconensis</i> <i>Diana Gorostidi Pi, Jordi López Vilar and Anna Gutiérrez García-M.</i>	577
4. ADVANCES IN PROVENANCE TECHNIQUES, METHODOLOGIES AND DATABASES	
Grainautline – a Supervised Grain Boundary Extraction Tool Supported by Image Processing and Pattern Recognition <i>Kristóf Csorba, Lilla Barancsuk, Balázs Székely and Judit Zöldföldi</i>	587
A Database and GIS Project about Quarrying, Circulation and Use of Stone During the Roman Age in <i>Regio X - Venetia et Histria</i> . The Case Study of the Euganean Trachyte <i>Caterine Previato and Arturo Zara</i>	597
5. QUARRIES AND GEOLOGY	
The Distribution of Troad Granite Columns as Evidence for Reconstructing the Management of Their Production <i>Patrizio Pensabene, Javier Á. Domingo and Isabel Rodà</i>	613
Ancient Quarries and Stonemasonry in Northern Choria Considiana <i>Hale Güney</i>	621
Polychromy in Larisaeon Quarries and its Relation to Architectural Conception <i>Gizem Mater and Ertunç Denктаş</i>	633
Euromos of Caria: the Origin of an Hitherto Unknown Grey Veined Stepped Marble of Roman Antiquity <i>Matthias Bruno, Donato Attanasio, Walter Prochaska and Ali Bahadır Yavuz</i>	639
Unknown Painted Quarry Inscriptions from Bacakale at <i>Docimium</i> (Turkey) <i>Matthias Bruno</i>	651
The Green Schist Marble Stone of Jebel El Hairech (North West of Tunisia): a Multi-Analytical Approach and its Uses in Antiquity <i>Ameur Younès, Mohamed Gaied and Wissem Gallala</i>	659
Building Materials and the Ancient Quarries at <i>Thamugadi</i> (East of Algeria), Case Study: Sandstone and Limestone <i>Younès Rezkallah and Ramdane Marmi</i>	673

The Local Quarries of the Ancient Roman City of <i>Valeria</i> (Cuenca, Spain) <i>Javier Atienza Fuente</i>	683
The Stone and Ancient Quarries of Montjuïc Mountain (Barcelona, Spain) <i>Aureli Álvarez</i>	693
<i>Notae Lapidinarum</i> : Preliminary Considerations about the Quarry Marks from the Provincial Forum of <i>Tarraco</i> <i>Maria Serena Vinci</i>	699
The Different Steps of the Rough-Hewing on a Monumental Sculpture at the Greek Archaic Period: the Unfinished Kouros of Thasos <i>Danièle Braunstein</i>	711
A Review of Copying Techniques in Greco-Roman Sculpture <i>Séverine Moureaud</i>	717
Labour Forces at Imperial Quarries <i>Ben Russell</i>	733
Social Position of Craftsmen inside the Stone and Marble Processing Trades in the Light of Diocletian's Edict on Prices <i>Krešimir Bosnić and Branko Matulić</i>	741
6. STONE PROPERTIES, WEATHERING EFFECTS AND RESTORATION, AS RELATED TO DIAGNOSIS PROBLEMS, MATCHING OF STONE FRAGMENTS AND AUTHENTICITY	
Methods of Consolidation and Protection of Pentelic Marble <i>Maria Apostolopoulou, Elissavet Drakopoulou, Maria Karoglou and Asterios Bakolas</i>	749
7. PIGMENTS AND PAINTINGS ON MARBLE	
Painting and Sculpture Conservation in Two Gallo-Roman Temples in Picardy (France): Champlieu and Pont-Sainte-Maxence <i>Véronique Brunet-Gaston and Christophe Gaston</i>	763
The Use of Colour on Roman Marble Sarcophagi <i>Eliana Siotto</i>	773
New Evidence for Ancient Gilding and Historic Restorations on a Portrait of Antinous in the San Antonio Museum of Art <i>Jessica Powers, Mark Abbe, Michelle Bushey and Scott H. Pike</i>	783
Schists and Pigments from Ancient Swat (Khyber Pukhtunkhwa, Pakistan) <i>Francesco Mariottini, Gianluca Vignaroli, Maurizio Mariottini and Mauro Roma</i>	793
8. SPECIAL THEME SESSION: „THE USE OF MARBLE AND LIMESTONE IN THE ADRIATIC BASIN IN ANTIQUITY”	
Marble Sarcophagi of Roman Dalmatia Material – Provenance – Workmanship <i>Guntram Koch</i>	809

Funerary Monuments and Quarry Management in Middle Dalmatia <i>Nenad Cambi</i>	827
Marble Revetments of Diocletian's Palace <i>Katja Marasović and Vinka Marinković</i>	839
The Use of Limestones as Construction Materials for the Mosaics of Diocletian's Palace <i>Branko Matulić, Domagoj Mudronja and Krešimir Bosnić</i>	855
Restoration of the Peristyle of Diocletian's Palace in Split <i>Goran Nikšić</i>	863
Marble Slabs Used at the Archaeological Site of Sorna near Poreč Istria – Croatia <i>Đeni Gobić-Bravar</i>	871
Ancient Marbles from the Villa in Verige Bay, Brijuni Island, Croatia <i>Mira Pavletić and Đeni Gobić-Bravar</i>	879
Notes on Early Christian Ambos and Altars in the Light of some Fragments from the Islands of Pag and Rab <i>Mirja Jarak</i>	887
The Marbles in the Chapel of the Blessed John of Trogir in the Cathedral of St. Lawrence at Trogir <i>Đeni Gobić-Bravar and Daniela Matetić Poljak</i>	899
The Use of Limestone in the Roman Province of Dalmatia <i>Edisa Lozić and Igor Rižnar</i>	915
The Extraction and Use of Limestone in Istria in Antiquity <i>Klara Buršić-Matijašić and Robert Matijašić</i>	925
Aurisina Limestone in the Roman Age: from Karst Quarries to the Cities of the Adriatic Basin <i>Caterina Previato</i>	933
The Remains of Infrastructural Facilities of the Ancient Quarries on Zadar Islands (Croatia) <i>Mate Parica</i>	941
The Impact of Local Geomorphological and Geological Features of the Area for the Construction of the Burnum Amphitheatre <i>Miroslav Glavičić and Uroš Stepišnik</i>	951
Roman Quarry Klis Kosa near Salona <i>Ivan Alduk</i>	957
Marmore Lavdata Brattia <i>Miona Miliša and Vinka Marinković</i>	963
Quarries of the Lumbarda Archipelago <i>Ivka Lipanović and Vinka Marinković</i>	979

Island of Korčula – Importer and Exporter of Stone in Antiquity <i>Mate Parica and Igor Borzić</i>	985
Faux Marbling Motifs in Early Christian Frescoes in Central and South Dalmatia: Preliminary Report <i>Tonči Borovac, Antonija Gluhan and Nikola Radošević</i>	995
INDEX OF AUTHORS	1009

ROMAN MONOLITHIC FOUNTAINS AND THASIAN MARBLE

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Abstract

A group of four marble fountain spouts in a storeroom in the Vatican Museums appeared to be made of dolomitic marble from Thasos. Analysis of the marble with paramagnetic resonance spectroscopy confirmed this identification. In spite of differences, all four pieces seem to be produced by the same workshop, which can be called the Vatican Fountain Workshop. Examples of this type of fountain spout, which have water stairs on four sides and were intended to be placed in the center of a pool, are found scattered throughout the western Roman Empire. One example in Pula, Croatia is clearly a product of the Vatican workshop and appears to be made of Thasian marble. Most surviving monolithic fountain spouts appear to date from the second century, but the type clearly underwent a rapid development from simple to richly decorated forms during the course of the last third of the first century CE. The Vatican workshop evidently specialized in relatively simple cubic forms. Although the workshop favored Thasian marble and included at least one sculptor from Thasos, it was based in Rome. It also may have produced statues of the sleeping Ariadne in dolomitic Thasian marble for fountains.

Keywords

EPR, exportation, sculptors

Methodology

Four possible Thasian marble fountains in the Magazzino ex-dei Ponteggi of the Vatican Museums were identified by eye on the basis of their coarse grain, absence of gray marks, and glittering grains. For verification, chip samples were taken and analyzed at the Istituto di Struttura della Materia, Consiglio Nazionale delle Ricerche, Roma, making use of magnetic resonance spectrography (EPR) to determine if they were dolomite or calcite. As is now widely accepted, the Cape Vathy/Saliari Area on Thasos was the only source of pure white, coarse-grain dolomitic marble for sculptural purposes during antiquity. All four



Fig. 1. Pompeii, House of Octavius Quartio, Fountain in the Euripus, 62-79 CE. (photo: Rosyfingereddawn img 2249)

of the Vatican samples proved to dolomitic (Table I), and hence the marble came from Thasos. Another candidate in Pula, Croatia could not be sampled, but its similarities in type, style, and macroscopic qualities of the marble leave little doubt that it is Thasian marble and was produced by a sculptor responsible for at least one of the Vatican fountains.

Description, development, chronology, and material of the fountains

Pompeii and Herculaneum preserve a great variety of fountains and other water displays.¹ Most of them are basically niches, evoking caves of the nymphs, but a novelty emerged not long before the eruption of Vesuvius in 79 CE: the free-standing fountain with water-stairs on four sides. Two examples have been found at Pompeii; one is pyramidal and the other basically cubic. The House of Octavius Quartio (formerly known as the House of Loreius Tiburtinus), presents the cubic type: the fountain forms a boxy island in a large water tank (Fig. 1).² Water emerged from an opening on top and was collected in a pool on the

1 NEUERBURG 1965.

2 GALLIAZZO 1979, 60, pl. 6, fig. 5; LAVAGNE 1998, 280, fig. 12.



Fig. 2. Fountain, unknown coarse-grained marble, 2nd century, Lambaesis, Museum



Fig. 3. Fountain, marble, 2nd century, Pula (photo: P. Blanc)

upper platform. It then spilled down stairs on all four sides into a surrounding pool. The fountain is built of masonry and jacketed with marble. The House of Apollo (VI.7.23) formerly had a small eight-sided pyramid with steps on four sides, again built of masonry jacketed with marble and located in the center of a pool.³

In the period after the eruption of Vesuvius, the spout or upper unit of this kind of fountain began at times to be made of a single block of marble. The spout

3 House of Apollo, Pompeii, also called the House of Herenuleius Communis (VI, 7, 23); there the pyramid is 8-sided; LAVAGNE 1998, 280, fig. 14; see also <http://pompeiiinpictures.com/pompeiiinpictures/R6/6%2007%2023%20p3.htm>.



Fig. 4. Fountain with incised diamonds, fine-grained marble, 2nd century, Cherchel, New Museum

could take the form of a four-sided stepped pyramid, as in the 3rd century Domus dei Pesci at Ostia.⁴ In other cases, the spout could take a cubic form, like that of the House of Octavius Quartio. In a very simple example in Lambaesis, Algeria (Fig. 2), the stairs have been retracted into the block, perhaps for ease of carving and efficient use of the marble block. Lambaesis lies on the southern frontier of ancient Numidia and was founded by Hadrian between 123 and 129. Another example in Pula, Istria (northern Croatia) presents the same cubic outer contours, but the staircases have become semicircular, and the waterspout at the top center has taken the form of the shoulder and rim of a jar (an *olla* or perhaps a *crater*) (Fig. 3).⁵ In another Algerian example in Cherchel, ancient Caesarea Mauretaniae, the two types seem to be mixed (Fig. 4)⁶; the block is a low truncated pyramid, but, like the cubic type, it has a pool on top.

While the examples in Lambaesis (Fig. 2), Pula (Fig. 3), and Ostia show that relatively simple and functional fountains continued to be produced through the second and into the third century, ornamental touches and illusionistic effects also proliferated. In the fountain in Cherchel (Fig. 4), diamonds are incised on the sides, and a cockleshell tops each stairway so that the sea creature appears to be the source for the water flowing down the stairs (Fig. 4). A cockleshell topping the stairs became a popular motif; it appears in a fountain in the Vatican

4 The pyramid is mounted on top of a cube of masonry in the center of a pool, all jacketed with marble: GALLIAZZO 1979, 64; <http://www.ostia-antica.org/regio4/3/3-3.htm>.

5 Kindly called to our attention by Philippe Blanc.

6 Found in an „agricultural establishment“ near Cherchel: LASSUS 1957, 132, fig. 7; LAVAGNE 1998, 281.



Fig. 5. Fountain with tapering stairs, dolomitic marble from Thasos, late first or second century, Musei Vaticani, MV 1110



Fig. 6a, 6b. Fountain with Medusa heads and a sleeping nymph, dolomitic marble from Thasos, late first or second century, Musei Vaticani, MV 7523

(Fig. 5),⁷ which returns to the basic cubic shape (the sides of the block are vertical). The sides of the stairs, however, slope to give the illusion of that they project.

The marble of the Algerian and Istrian fountains is unknown, but the Vatican fountain appears to be coarse-grained Thasian marble. Analysis with EPR now shows that this and three other coarse-grained fountains in the Vatican are, in fact, dolomitic marble, and consequently from the Cape Vathy area on Thasos (Table 1).

Most of the Thasian group are the cubic type. The masterpiece of the group was larger and more elaborate (Fig. 6).⁸ The waterspout on top is again a storage jar, and on two sides the stairs project out from the cubic body of the fountain, while on the other two sides the stairs are narrower and do not project. Decoration is also richer, and mythological and animal figures make their appearance. At the top of each projecting stairway lies a sleeping nymph, and at the top of the minor stairs are heads of the Medusa. Water spouted from the Medusa's mouths and from the nymphs' jars. The corners of the block are embellished with the heads of sacrificial rams, as on the corners of Roman altars.

A similar fountain is preserved in the Temple of Roma and Augustus in Pula, Croatia (Fig. 7). In this fountain a satyr sleeps at the top of one of the major stairs, which does not project. On the opposite side of the Pula fountain is a sleeping nymph (Fig. 7c), and in this case there originally was a projecting stairway, which was later cut away. This side also has a new decorative novelty; boys hold water jars over their shoulder, and the jars serve as water spouts. The cockleshell returns over the minor stairs. The interior of the Pula piece has been entirely hollowed out. By eye, this fountain appears to be Thasian marble, but we were not allowed to take a sample. In any case, the form, the workmanship, and the visual appearance of the marble make it clear that the fountain in Pula is a product exported by the workshop in Rome.

Back in Rome, the same workshop took up the idea of the waterboy of the Pula fountain in bolder form; in another Thasian marble fountain in the Vatican, each corner is occupied by a high relief figure of a satyr, who pours from a wine jar (Fig. 8).⁹ The fountain is probably no earlier than the Hadrianic period, 117-138 CE. The satyr stands on a column base, and profiled sculpture bases seem not to appear before Hadrianic times. On the other

7 Inv. 1110, Magazzino ex Ponteggi: AMELUNG 1903, pl. 29, n. 192c; GALLIAZZO 1979, 73, fig. 16; WALKER 1985; LAVAGNE 1998, 274, fig. 3.

8 AMELUNG 1903, pl. 29, nn. 170-170a; GALLIAZZO 1979, 73-74, fig. 20.

9 GALLIAZZO 1979, 73, fig. 17; LAVAGNE 1998, 275, fig. 8.



Fig. 7 a-c. Fountain with a sleeping nymph, sleeping satyr, and water boys; probably Thasian marble, late first or second century, Pula, Temple of Roma and Augustus



Fig. 8. Fountain with waterboys in the corners, dolomitic marble from Thasos, ca. 125-150, Musei Vaticani, MV 649

hand, the absence of drillwork suggests that the fountain is not likely to be much later than Hadrianic either.

Cubic and pyramidal designs were not the only types of “monolithic island fountain;” polygonal and curvilinear designs were an alternative available since the late first century at least. In the Domus Flavia, the Palace of Domitian (81-97 CE), an island of niches arises out of a pool, and both pool and island have an oval plan (Fig. 9)¹⁰. The niched oval island was built of brickwork and jacketed with marble. A number of marble stepped waterspouts share some of this complexity.

The last of the Thasian marble fountains in the Vatican takes up a polygonal form with curvilinear sectors; the corners – or rather the intervals between the four stairways – become broad concavities decorated with masks of river gods (Fig. 10).¹¹ In plan the fountain is an octagon with alternating straight and curved sides. Although very damaged by old restorations, the head of river gods have an impressively Hellenistic character, and again the absence of drillwork indicates a date in or before Hadrianic times.

The last fountain in the Vatican storeroom, takes the polygonal idea even further: it has 14 sides. It also returns to the idea of having an urn at the top center. Its main sculptural decorations are the reliefs between the stairs, which depict the wanderings of Ulysses (Fig. 11).¹²

10 NEUERBURG 1965, 221-222, figs. 77-78.

11 GALLIAZZO 1979, 78, fig. 24.

12 AMELUNG 1903, pl. 29, 170-171a; figures: fisherman.

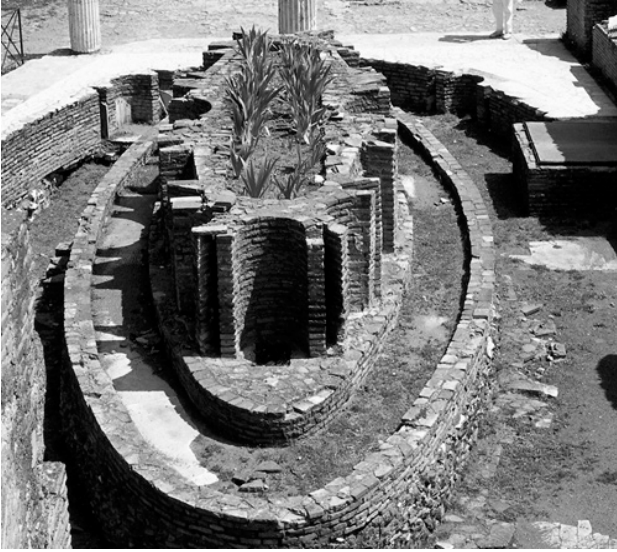


Fig. 9. Oval fountain, brick faced concrete, Domus Flavia, Rome, ca. 90 CE (photo: girlstalkinmack.com)



Fig. 11. Fountain with wanderings of Ulysses, fine-grained (Carrara?) marble, ca. 100-150, Musei Vaticani



Fig. 10. Fountain with heads of river gods, dolomitic marble from Thasos, ca. 90-140, Musei Vaticani, MV 1134



This fountain, however, is a fine-grained marble that is certainly not from Thasos, and in spite of the common features, such as the urn, the steps, and the cockle shells, it seems to be the work of a competitor to the Vatican Fountain Workshop.

Many other monolithic fountains with water stairs are scattered around Rome, Ostia, and north Italy, and Rome is regarded as the center production and diffusion of this type of artifact.¹³ From photographs, none of the other examples seem to be closely related to the products of the Vatican Fountain Workshop, as described above, although inspection and analysis of the marble of the others may provide surprises. Two fountains in the British Museum can be included among the Italian examples.¹⁴ A recently discovered fountain in a villa excavated at Anagnina, now in the Small Cloister of the Museo Nazionale Romano, does not appear macroscopically to be in Thasian marble. A magnificent fountain in Tarragona¹⁵ is in a beautiful, fine-grained white marble (Fig. 12). Two examples in southern Gaul and an example from Avenches,

man seated on rock, standing girl with bucket, (side against wall), Pan, Odysseus in ship, 3 Sirens; jar in center; GALLIAZZO 1979, 63, n. 47, 78; LAVAGNE 1998, 275, fig. 5.

13 GALLIAZZO 1979; LAVAGNE 1998; CILIBERTO 2010; RINALDI 2015.

14 From the Adams Collection, Rome and the Townley Collection: BM 1786,0526.2; SMITH 1901, p. 409, fig. 67, cat. no. 2536; REINACH 1912, pl. 517, 1.

15 LAVAGNE 1998, 276, fig. 7.



Fig. 12. Fountain with Cupids, fine-grained marble, late first or early second century, Tarragona, Archaeological Museum



Fig. 13. Sleeping Satyr, fountain figure, dolomitic marble from Thasos, ca.120-150, Musei Vaticani MV 7254

Switzerland¹⁶ may have better chances of belonging to the Vatican group. A four-sided stepped pyramidal fountain is placed in the center of a courtyard adjoining the Octagon of St. Paul in Philippi.¹⁷ The fountain could well have been imported from the West but has no apparent relationship to the Vatican group.

The picture that emerges from this review of monolithic marble fountains of the span of about 70-140 CE is one of a rapidly evolving and diversified decorative tradition. Clients and workshops were competing to outdo one-another in luxurious novelties, but simple and presumably economical models also survived. The workshop using Thasian marble seems to have specialized in the relatively old-fashioned cubic fountain, but they gave this type a series of decorative variations that made no two pieces the same.



Fig. 14. Sleeping Satyr, fountain figure, probably Thasian marble, ca.120-140. From the Agora, Thasos, Thasos, Museum

Thasian marble and Thasian workmanship

The importance of Thasian marble for the “Vatican Fountain Workshop” raises the question of whether there was a special relationship between its sculptors and Thasos. Thasian marble is generally rare at Rome; being used for roughly 4% of Rome’s figural sculptures.¹⁸ The preponderance of Thasian marble in the fountains examined is undoubtedly significant. It could be a preference based on practical considerations; dolomitic marble is both more resistant to chemical action and physically harder than the usual calcitic marble. This resistance may have been considered valuable in objects exposed frequently or constantly to running water.

In spite of the absence of similar fountains in northern Greece, there are stylistic reasons to believe that the leading sculptor of the Vatican Fountain Workshop had a personal connection to Thasos. A large-scale reclining satyr, also in the Vatican, was carved in dolomitic marble from Thasos, as Donato Attanasio has previously shown with EPR (Fig. 13), and it was almost certainly carved by a sculptor from Thasos.¹⁹ A very similar satyr on Thasos also appears to be the island’s dolomitic marble (Fig. 14).²⁰ Both were fountain figures with an opening for a water jet. Reclining or sleeping satyrs (rather than *sileni*) are rare, and these Thasian statues of satyrs have much in common with the miniature satyr carved on the fountain in Pula (Fig. 7a). Both the pose and the softly lumpy modeling of anatomy and rock are similar. Since the relationships in theme and style between the Thasian statue of a satyr in Rome and the miniature satyr on the Thasian marble fountain in Pula (but produced in Rome) are so close, it seems likely that the intense use of Thasian marble in the Vatican Fountain Workshop represents the presence at Rome of a sculptor from Thasos.

16 LAVAGNE 1998, 271-274, fig. 1-2.

17 KOUKOULI-CHRYSANTHAKI, BAKIRTZIS 2000, 50, fig. 41; CILIBERTO 2010, 102.

18 HERRMANN *et al.* 2014.

19 HERRMANN *et al.* 2015, 157, fig. 6.

20 HERRMANN *et al.* 2015, 157, fig. 5.

Vatican #	Title/description
MV 649	Fountain with water stairs and waterboys ²¹
MV 1110	Simple cubic fountain with water stairs ²²
MV 1134	Fountain with water stair and masks, addition?
MV 1134	Fountain with water stair and masks, central block ²³
MV 1135	Fountain with sleeping nymphs ²⁴
MV 7253	Statue of Ariadne sleeping, bust and head ²⁵

Table 1.
Samples analyzed with EPR at the ISM-CNR: all proved to be dolomite and therefore marble from the Cape Vathy/Saliara area, Thasos

Statues in Thasian dolomite of Ariadne sleeping

Kept in the same storeroom with the small marble fountain spouts was the statue of a sleeping female figure with a hole for a water jet MV 7253 (Fig. 15). The upper part of this sculpture too appeared to be Thasian marble, and on analysis with EPR it proved to be dolomite and therefore Thasian (Table I). The legs are a restoration in a different marble. The distinctive Dionysiac headband identifies the figure as Ariadne, who cushions her head with her right hand placed on her left shoulder. Another head of this type in the Vatican (Magazzino delle Corazze section T, MV 4339) also appears to be Thasian (Fig. 16).²⁶ This type of Ariadne seems infrequent, and since Thasian marble is rare in sculpture in Rome, the two Thasian examples of the type suggest that the choice of this marble was not coincidental. Again the hard stone may have been considered especially suitable for fountains. The sculptors of the Ariadnes might also have been associated with the Vatican Fountain Workshop, since a sleeping nymph or Ariadne in this pose appears on two of the Thasian fountains (Figs. 6, 7). The technique of the Ariadnes also shows an affinity with other productions in Thasian marble; like most sculptures on Thasos itself, the Ariadnes make minimal use of drillwork. It seems possible that one or both of the sculptors of the Ariadnes were migrants from Thasos or northern Greece. The much larger Ariadne statues, however, are more canonical productions than the figures on the fountains. They must have been based on a famous stock figure available in Rome, and their carvers were apparently influenced by the Classicizing criteria governing that kind of replication of famous mythological prototypes.



Fig. 15. Head and torso of Ariadne sleeping, fountain figure, dolomitic marble from Thasos, 100-150, Musei Vaticani, MV 7253



Fig. 16. Head of Ariadne sleeping, probably Thasian marble, 100-150, Musei Vaticani, MV 4339

21 H 37.5 cm, Lower D 39.8; lower W 44 cm.

22 H 19.8 cm; lower D 31.5 (probably ca. 36 originally).

23 H 40.5, L 61, W 35.5 cm.

24 H 19.8 cm; lower D 31.5 (probably ca 36 originally).

25 Body and head Thasian; draped legs fine-grained marble. AMELUNG 1903, 848, cat. No. 100, pl. 101.

26 For another fragmentary example, see AMELUNG 1903, 862, cat. no. 157, pl. 107.

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BIBLIOGRAPHY

- AMELUNG W. 1903: *Skulpturen des Vaticanischen Museums*, I, Berlin.
- CILIBERTO F. 2010: "Il piacere dell'acqua: le fontane a scaletta di Aquileia", *Arredi di lusso in età romana. Marmi e bronzi nelle case della Cisalpina*, part 2, *LANX Rivista della Scuola di Specializzazione in Archeologia*, Università degli Studi di Milano 6, 100-149.
- GALLIAZZO V. 1979: "Significato e funzione della fontanella „a scalette d'acqua“ nella casa romana ed un singolare frammento al Museo Civico di Feltre," *Atti della Accademia roveretana degli agiati. Contributi della classe di scienze umane, lettere ed arti* 19, 49-82.
- HERRMANN J., ATTANASIO D., VAN DEN HOEK A. 2014: "Marble from the fringes and sculpture at Rome: the case of Thasian marble in the Musei Comunali," *XVIII CIAC: Centre and periphery in the ancient world*, 11-16.
- HERRMANN J., ATTANASIO D., VAN DEN HOEK A. 2015: "Thasian Exports of Prefabricated Statuettes," in *ASMOSIA X*, 155-161.
- KOUKOULI-CHRYSANTHAKI C., BAKIRTZIS C. 2000: *Philippi*, Athens.
- LASSUS J. 1957: "L'archéologie algérienne en 1956," *Libyca* 5, 123-152.
- LAVAGNE H. 1998: "*Fonticuli*. Deux fontaines à escaliers d'eau en Narbonnaise. Beaurepaire (Isère) et Nissan-les-Ensérune (Hérault)," *Revue des Études Anciennes* 100.1, 269-287.
- NEUERBURG N. 1965: *L'architettura delle fontane e dei ninfei nell'Italia antica*, Napoli.
- REINACH S. 1912: *Répertoire de Reliefs Grecs et Romains*, 2: Afrique – Iles Britanniques, Paris.
- RINALDI F. 2015: Fontane, fontanelle a scaletta, in P. FORTINI (ed.): *La rampa imperiale: scavi e restauri tra foro romano e palatino*, Milan, cat. Nos. 10-12, 119-123.
- SMITH, A. H. 1901: *Sculpture in the Department of Greek and Roman Antiquities*, British Museum, vol. 3, London.