

The Winged Victory of Samothrace - New Data on the Different Marbles Used for the Monument from the Sanctuary of the Great Gods

Blanc, Annie; Blanc, Philippe; Laugier, Ludovic

Source / Izvornik: **ASMOSIA XI, Interdisciplinary Studies on Ancient Stone, Proceedings of the XI International Conference of ASMOSIA, 2018, 331 - 335**

Conference paper / Rad u zborniku

Publication status / Verzija rada: **Published version / Objavljena verzija rada (izdavačev PDF)**

<https://doi.org/10.31534/XI.asmosia.2015/02.17>

Permanent link / Trajna poveznica: <https://urn.nsk.hr/urn:nbn:hr:123:253899>

Rights / Prava: [In copyright](#) / [Zaštićeno autorskim pravom.](#)

Download date / Datum preuzimanja: **2024-05-19**



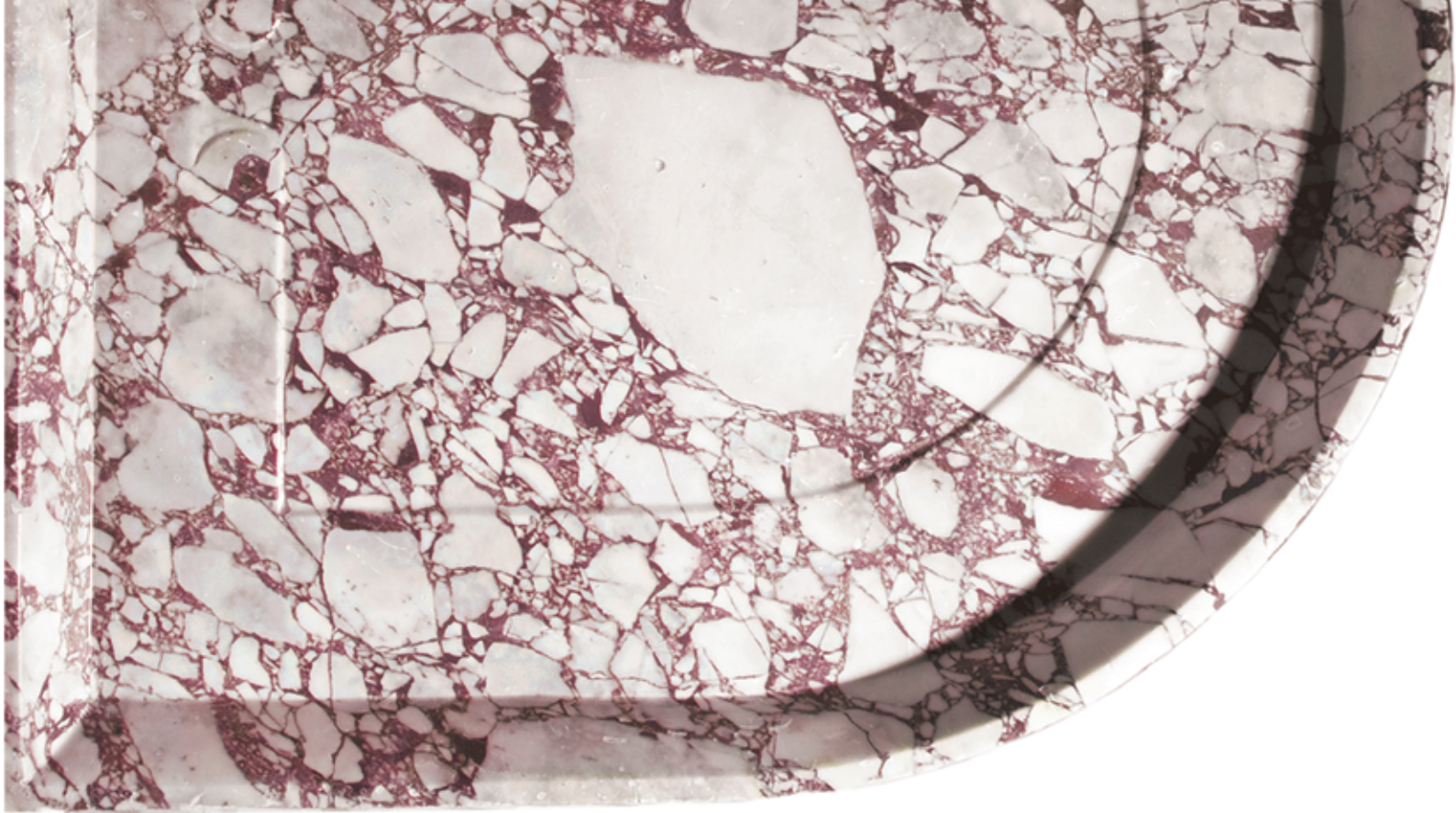
Repository / Repozitorij:

[FCEAG Repository - Repository of the Faculty of Civil Engineering, Architecture and Geodesy, University of Split](#)



UNIVERSITY OF SPLIT





ASMOSIA XI

Interdisciplinary Studies on Ancient Stone

PROCEEDINGS

of the XI ASMOSIA Conference, Split 2015

Edited by Daniela Matetić Poljak and Katja Marasović



Interdisciplinary Studies on Ancient Stone
Proceedings of the XI ASMOSIA Conference (Split 2015)

Publishers:

ARTS ACADEMY IN SPLIT
UNIVERSITY OF SPLIT

and

UNIVERSITY OF SPLIT
FACULTY OF CIVIL ENGINEERING,
ARCHITECTURE AND GEODESY

Technical editor:
Kate Bošković

English language editor:
Graham McMaster

Computer pre-press:
Nikola Križanac

Cover design:
Mladen Čulić

Cover page:

Sigma shaped mensa of pavonazzetto marble from Diocletian's palace in Split

ISBN 978-953-6617-49-4 (Arts Academy in Split)

ISBN 978-953-6116-75-1 (Faculty of Civil Engineering, Architecture and Geodesy)

e-ISBN 978-953-6617-51-7 (Arts Academy in Split)

e-ISBN 978-953-6116-79-9 (Faculty of Civil Engineering, Architecture and Geodesy)

CIP available at the digital catalogue of the University Library in Split, no 170529005

Association for the Study of Marble & Other Stones in Antiquity

ASMOSIA XI

Interdisciplinary Studies of Ancient Stone

Proceedings of the Eleventh International Conference of ASMOSIA,
Split, 18–22 May 2015

Edited by
Daniela Matetić Poljak
Katja Marasović



Split, 2018

Nota bene

All papers are subjected to an international review.

The quality of the images relies on the quality of the originals provided by the authors.

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 Silentiary, 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 Brilli 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. Peréz 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 Barancsik, 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 Prevato 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 Denktaş</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 Prevato</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

THE WINGED VICTORY OF SAMOTHRACE: NEW DATA ON THE DIFFERENT MARBLES USED FOR THE MONUMENT FROM THE SANCTUARY OF THE GREAT GODS

Annie Blanc¹, Philippe Blanc² and Ludovic Laugier³

¹ Paris, France (philippe.blanc64@sfr.fr)

² Sorbonne Universités, UPMC, UMR 9173, iSTeP, Paris, France (philippe.blanc@upmc.fr)

³ Musée du Louvre, département des Antiquités grecques, étrusques et romaines, Paris, France (ludovic.laugier@louvre.fr)

Abstract

The Winged Victory of Samothrace has long been recognized as a masterpiece of Hellenistic art. Composed of a base in gray marble and a statue in white marble, made of several blocks sculpted separately and assembled, it was entirely restored in 2013-2014. It had been previously thought that the monument might have been sculpted from Proconnesian or Pentelic marble, but laboratory analysis by Yannis Maniatis proved that a sample from a feather housed in the museum of Samothrace was Parian. During its conservation in 2013-14 and at the request of the Louvre, the different marbles constituting the monument were analyzed to confirm recent hypotheses and to get a more complete set of precise information. Fifteen samples were taken and complementary methods were used so that the different results could be compared and cross-checked: measurement of the MGS, analyses of the stable isotopes of the marble, petrography, and cathodoluminescence.

Keywords

Paros marble, Hellenistic sculpture, Winged Victory of Samothrace

Previous work

The monumental Winged Victory of Samothrace displayed on the Daru Staircase in the Louvre is composed of a base, a plinth made of six blocks and the anterior part of a warship, made of seventeen blocks, all in gray marble with pinkish-white veins, weighing twenty-seven tons, and a statue made from seven principal white marble blocks sculpted separately and then assembled, weighing almost two tons (Fig. 1). It was previously thought that the monument might have been sculpted from Proconnesian or Pentelic marble, but today it is generally agreed that the Winged Victory is in Parian marble and the boat that serves as its base is in marble from Lartos on Rhodes.

Before discussing the analyses carried out in 2013-14, during the conservation of the monument, it is useful to refer to previous studies and first to the very first although practically unknown study of 1951 when, at the initiative of Jean Charbonneaux, mineralogical tests were carried out by Madeleine Deudon at the Office de Documentation des Monuments Français at the Palais de Chaillot. The parts of the monument tested included fragments of the boat, its plinth, a feather from the Winged Victory (Fig. 2), and a fragment of the inscription considered at the time to be the artist's signature. In addition, Jean Charbonneaux also provided a sample from a fragment of the ship found in Samothrace, in the theater of the sanctuary, just below the Winged Victory's precinct, which he acquired in July 1950 when working with Karl Lehman, director of the American mission on the island. At that time Charbonneaux also discovered the right hand of the statue. The results of the tests were very limited: they revealed that the fragments of the boat conserved in Paris and Samothrace were sculpted from the same marble, as was the plinth of the boat and the inscription; the feather, however, was made of different marble. It is interesting to note that these results are exactly the same as those we were to obtain today from thin-section analysis, especially with regard to the particular structure of the Lartos marble crystals.

Other tests were subsequently carried out, all providing additional information. In 1997, at the request of Ira Mark, under the supervision of Professor Scott Pike, four fragments of the plinth of the statue discovered in 1983 at Samothrace and for a time associated with the Winged Victory were analyzed, and these results were compared with those of tests made on a fragment taken from a break in the lower block of the statue at the Louvre. The results demonstrated that the Samothrace fragments were not sculpted from the same type of marble as the Winged Victory and therefore did not form part of the statue. As for the Louvre fragment, the identification of the marble remained open; in the 1990s literature, it was thought to be either Asia Minor marble or Parian marble.



Fig. 1.
Monument of the Winged Victory
of Samothrace, circa 190-150 BC,
Musée du Louvre

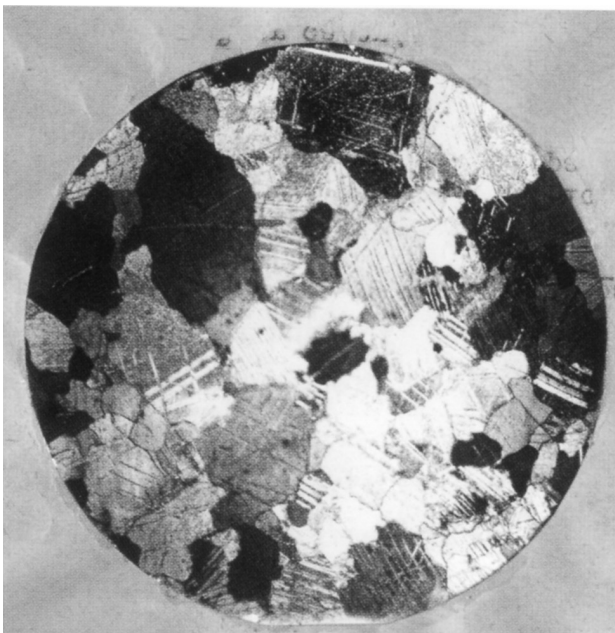


Fig. 2. Sample of marble from Paros examined by the Office
de Documentation des Monuments Français, Palais de
Chaillot, 1951

In 2008, on the initiative of Bonna Wescoat and Dimitris Matsas and under the direction of Professor Yanis Maniatis, conclusive multi-method laboratory analyses were carried out on fragments of the boat and on a feather that most probably belonged to the monument, all conserved in the Archaeological Museum of Samothrace. It was clearly established that the boat was made of Lartos marble and the feather of Parian marble from the Chorodaki-Lakkoi quarry¹.

New studies

In 2013–14, at the request of the Louvre, Annie and Philippe Blanc again analyzed the marble constituting the monument. Samples were taken from the bottom of the attachment holes made during the nineteenth-century restorations, and from breaks in the marble; in this way, no fragments from the original surface of the work were

1 MANIATIS, TAMBAKOPOULOS, DOTSIKA 2012, 263-278.

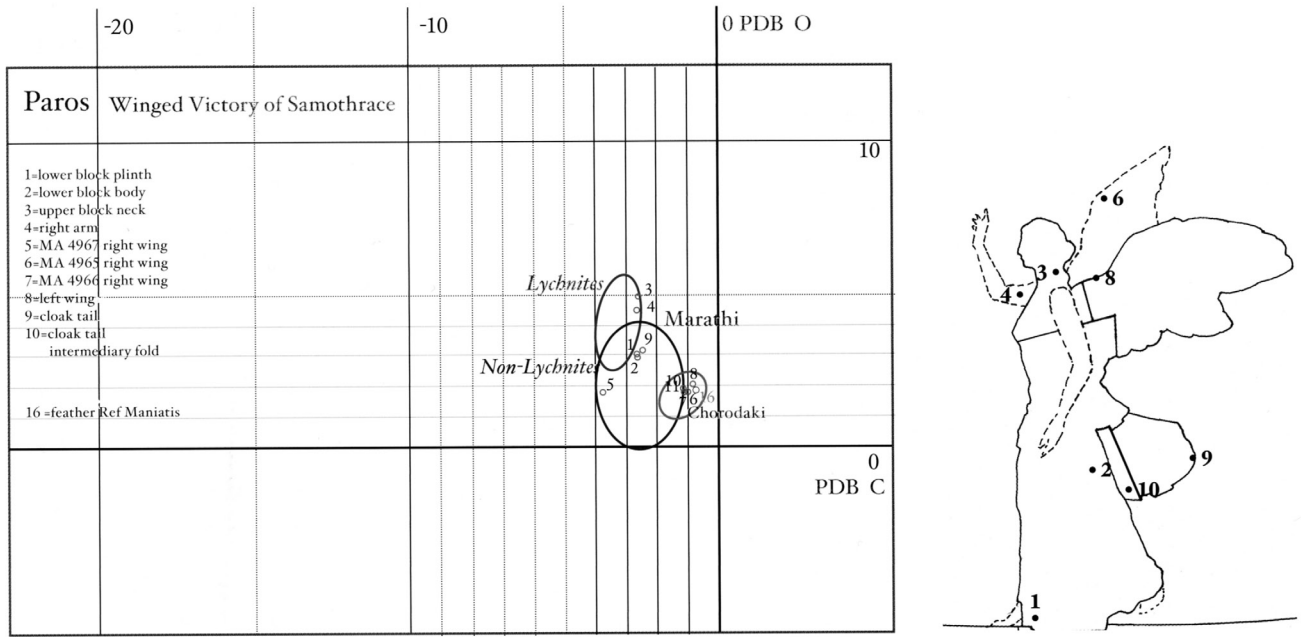


Fig. 3. Results of the isotopic analyses of the different marbles used for the Winged Victory and where the samples were taken from

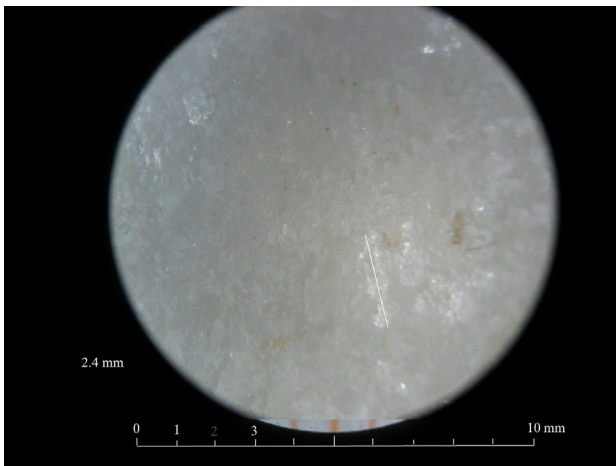


Fig. 4. Sample of Parian marble taken from the lower block of the Nike's body, MGS: 2, 4 mm

removed. It was decided to test a block from the pedestal of the base (S4, 5, and 6), a block from the boat (prow: C6), as well as all the blocks of the statue. Complementary methods were used so that the different results could be compared and cross-checked: measurement of maximum grain size (MGS), analyses of the stable isotopes of the marble², petrography, and cathodoluminescence (Fig. 3 and 4).

The results confirmed that the boat and its plinth were both sculpted in Lartos marble from the island of

Rhodes. The statue on the other hand is entirely in Parian marble. An interesting fact that emerged from these results was that the blocks of the statue — the body, the wings, and the drapery — do not all seem to come from the same quarries on Paros. The right arm and the block constituting the upper part of the body (which originally included the upper torso and head) are all sculpted from the most beautiful marble to be found on the island, indeed the most beautiful marble in the Greek world: the famous Lychnites marble from the Grotto of the Nymphs and Pan or the Northern Nymphs quarries at Marathi. The large block forming the lower part of the body is in a Parian marble known as “non-Lychnites”³, a variety from different areas in the same quarries at Marathi⁴. The same marble was used for the rear part of the cloak and for the fragment from the lower part of the right wing. The left wing, two fragments of the upper part of right wing, and the intermediary fold between the body and the rear part of the cloak are in Parian marble from the quarries of Chorodaki-Lakkoi⁵.

It seems then that the artist used different types of Parian marble for the various parts of the statue, which were sculpted separately and then assembled. How can

3 The lower block of the Nike's body is the larger one, 1.82 m high: two samples have been taken, from the lower and the upper part to double check for possible result variations and to make sure the determination of the Paros marble is accurate.

4 MANIATIS, POLYKRETI 2000.

5 SCHILARDI 2000.

2 GORGONI, LAZZARINI, PALLANTE 2002. See also ATTANASIO, BRILLI, OGLE 2006.



Fig. 5. Two fragments of the left wing, Marathi “Non Lychnitès and Chorodaki-Lakkoi. The upper fragment has been carved separately

these differences be interpreted? It is important to remember that the work was painted, or at least part of it was. A blue band at the lower part of the himation, painted with Egyptian blue and invisible today has been revealed by infrared luminescence (visible-induced luminescence imaging), and traces of a pigment made partly of Egyptian blue were found on the wings, thanks to the collaboration of Sandrine Pagès Camagna (Centre de Recherche et de Restauration des Musées de France) and Giovanni Verri (Courtauld Institut, London)⁶. Originally, then, the difference between the Lychnites marble of the bust and the colder hue of the Lakkoi marble used for the wings was probably less obvious than one might at first suppose. Moreover, the quarries in question were not

a long way from each other. We should also emphasize that the differences between the two Parian marbles are quite small. Still, we can propose possible hypotheses: the artist used only the best—the most translucent—Parian marble, for the flesh of the Winged Victory on the upper torso, head, and right arm, and most probably for the left arm, which has not survived, whereas he would probably have considered the excellent “non-Lychnites” marble as of sufficiently high quality for the drapery.

The wings are mainly in Lakkoi marble. A fragment from the bottom of the right wing seems, however, to have been sculpted in “non-Lychnites” rather than Lakkoi marble. Was this wing made in two pieces (Fig. 5)? The lower part of one of the fragments from the upper part of the wing is smooth, as though it had been prepared to be attached to another piece; the observation might back up this working hypothesis. The feather from

6 See HAMIAUX, LAUGIER, MARTINEZ 2014, p. 97-99.

the Samothrace museum analyzed by Professor Maniatis is in Lakkoi marble. Prof. Bonna Wescoat has attributed it to the right wing, as the fragment's curved shape seems to suggest. The fact that the right wing is probably made of two types of Parian marble allows this proposition.

The rear part of the cloak is in Parian “non-Lychnites” marble, whereas the intermediary fold joining the cloak to the body of the statue is in Parian Lakkoi marble (Fig. 5). We should beware of over-interpreting this result: Lakkoi is used for other blocks of the statue. Here, the nature of the marble does not explain the changes and repairs made by the artist, or indeed any alteration made at a later date.

We could also comment on the fragment with a dedication or a signature: as Madeleine Deudon well observed in 1952, it seems to be made of Lartian marble, as is the base of the monument. Still, it doesn't join the base anywhere. Instead it ought to be considered a fragment of a small base for a statuette, as its scale and the remains of an insertion slot at the top clearly suggest.

Conclusions

As a result of the 2013–14 restoration, the different kinds of marble used in the creation of the monument the Winged Victory of Samothrace seem to have been identified in their diversity, which makes it possible to cautiously formulate hypotheses about their use in the statue itself.

BIBLIOGRAPHY

- ATTANASIO D., BRILLI M., OGLE N. 2006: The Isotopic Signature of Classical Marbles, *L'Erma di Bretschneider*.
- GORGONI C., LAZZARINI L., PALLANTE P., TURI B. 2002: “An updated and detailed mineropetrographic and C - O stable isotopic reference database for the main Mediterranean marbles used in antiquity”, in *ASMOSIA V*, 115-131.
- HAMIAUX M., LAUGIER L., MARTINEZ J.-L. 2014: The Winged Victory of Samothrace.
- MANIATIS Y., POLYKRETI K. 2000: “The characterisation and discrimination of Parian marble in the Aegean region”, in *Paria Lithos*, 575-584.
- MANIATIS Y., TAMBAKOPOULOS D., DOTSIKA E., WESCOAT B. D., MATSAS D. 2012: “The Sanctuary of the Great Gods on Samothrace, Greece: an extended marble provenance study”, in *ASMOSIA IX*, 263-278.
- SCHILARDI D. U. 2000: “Observations on the quarries of Spilies, Lakkoi and Thapsana on Paros”, in *Paria lithos*, 35-59.