

Coloured Marbles in the Neapolitan Pavements (16th and 17th Centuries): the Church of Santi Severino e Sossio

Bugini, Roberto; Folli, Luisa; Solito, Martino

Source / Izvornik: **ASMOSIA XI, Interdisciplinary Studies on Ancient Stone, Proceedings of the XI International Conference of ASMOSIA, 2018, 275 - 280**

Conference paper / Rad u zborniku

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

<https://doi.org/10.31534/XI.asmosia.2015/02.11>

Permanent link / Trajna poveznica: <https://urn.nsk.hr/urn:nbn:hr:123:980929>

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

Download date / Datum preuzimanja: **2024-05-20**



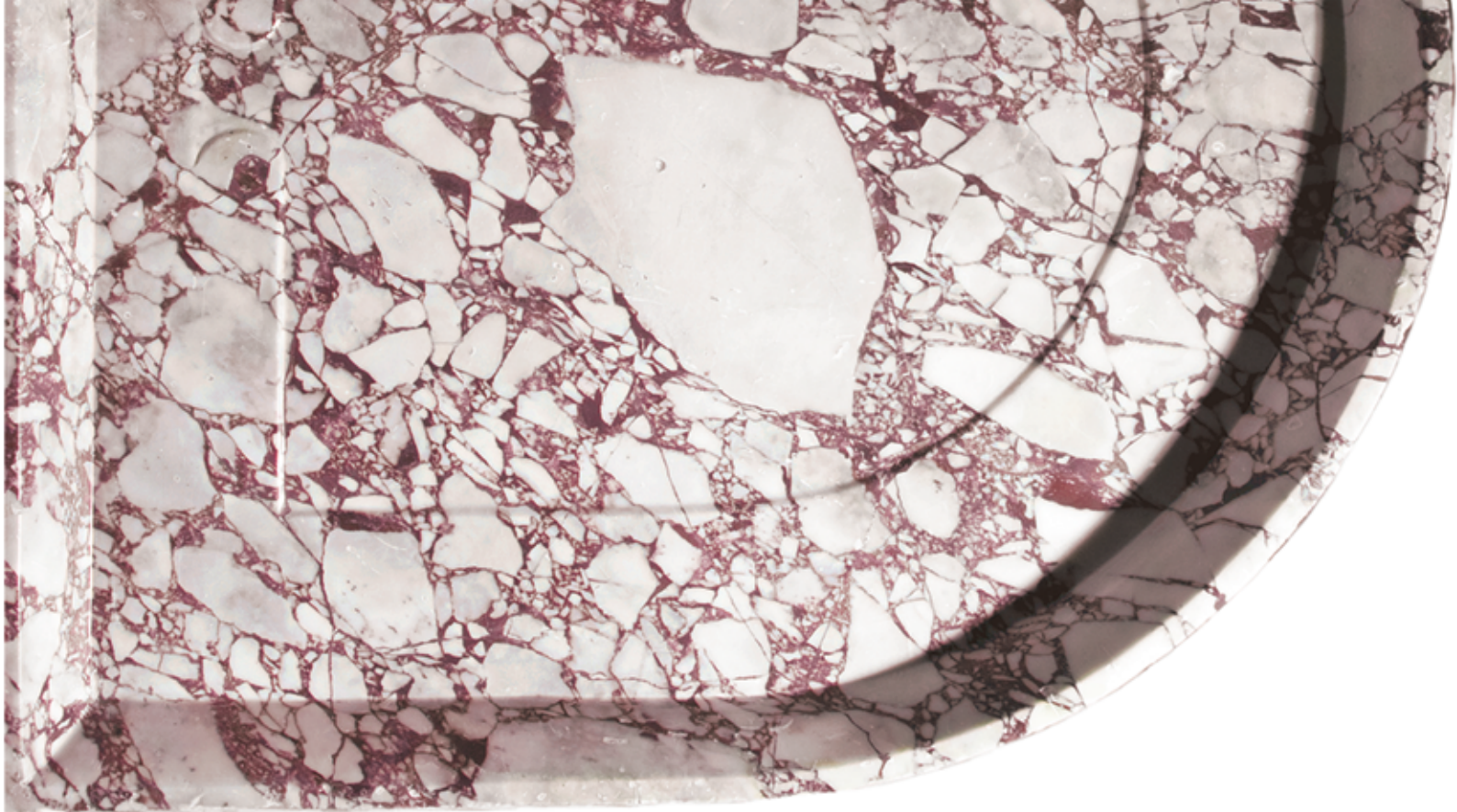
Repository / Repozitorij:

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



UNIVERSITY OF SPLIT


DIGITALNI AKADEMSKI ARHIVI I REPOZITORIJI



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 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

COLOURED MARBLES IN NEAPOLITAN PAVEMENTS (16TH AND 17TH CENTURIES): THE CHURCH OF SANTI SEVERINO E SOSSIO

Roberto Bugini¹, Luisa Folli² and Martino Solito³

¹ CNR-ICVBC (Ist. Conservazione Beni Culturali), Milan, Italy (bugini@icvbc.cnr.it)

² Viale Calabria 18B, Lodi, Italy (lufo@fastwebnet.it)

³ Via Colletta 10 - Martina Franca, Taranto, Italy (Info.martinosolitorestaurore@libero.it)

Abstract

The church of Santi Severino e Sossio (Naples) preserves a series of pavements showing the development of this architectural element between the 16th and 17th centuries. The pavement of the nave (late 16th century) is based on a square grid of white and grey marble with different coloured marble slabs in geometric shapes (Broccatello, Africano, Breccia corallina, Fior di pesco, Giallo antico, Portasanta, Verde antico). The pavement of the chancel (late 17th century) shows a simple pattern of black and white marble; the pavement of the high altar (late 17th century) shows a recurrent fantastic pattern based on floral figures and using a few coloured marbles; the pavement of the choir (late 17th century) contains a square grid based on the contrast between white and grey marble. Two different techniques were used: shaped slabs fitted together on a mortar bedding (*opus sectile*) or an inlay of coloured pieces in a carved monochrome background (*commesso alla fiorentina*).

Keywords

coloured marble, pavement, Naples

Introduction

An important architectural renovation of Naples started since the second quarter of the 16th century under the Spanish rule of the viceroy Pedro da Toledo. During the Counter-Reformation period, wealthy religious orders promoted the construction and restoration of churches and monasteries. This architectural renovation was led by several architects from Tuscany, such as Giovanni Antonio Dosio and Jacopo Lazzari. A specific aspect of their architecture was the use of coloured marble decorations, pavings and veneers. An example of the trend of coloured marble paving is present in the church of "Santi Severino e Sossio". This church pertains to one of the oldest, biggest and richest monasteries of Naples held by

the Benedictines; the building was transformed in 1835 into the seat of the Archivio di Stato. The church was built in different phases (1490-1571): the nave without aisles is flanked by seven chapels each side, the transept with two altars at the ends is surmounted by a dome, the high altar is surrounded by a balustrade and the huge choir is flanked by one chapel for each side. The high altar area, planned by Cosimo Fanzago, was made in 1635-41 and the pavement was completed in 1697 (PANE 1939; CANTONE 2002).

Methods of study

Recent conservation works on the church allowed a close examination of the whole pavements on the basis of a macroscopic survey. The marbles were compared to those reported in present-day literature (BORGHINI 1989; DOLCI, NISTA 1992; GNOLI 1988; LAZZARINI 2004; LAZZARINI 2007; MIELSCH 1985; NAPOLEONE 2001; PENSABENE, BRUNO 1998; PRICE 2007).

Description of the pavements

*Nave – The pavement features a grid, (rectangular slabs of white, black veined or grey marble) forming five longitudinal parts, each divided in several sections filled with a wide range of geometrical patterns made of coloured marbles (Figs. 1, 2).

Normally each section contains nine smaller panels arranged in three rows: the central panel is a tombstone made of a white marble slab carrying an inscription dedicated to the buried personage. Some sections show a basic pattern including rectangular coloured marble slabs surrounded by white marble set as *opus sectile*. Other sections present heraldic emblems sculpted in bas-relief at the four corners and the side panels with coloured marble are often inlaid in a white marble support. Other sections again show the central tombstone surrounded by coloured marble slabs with geometric shapes (circle, square, rectangle, triangle, rhomb) inlaid on large white marble slabs. Finally, some sections display

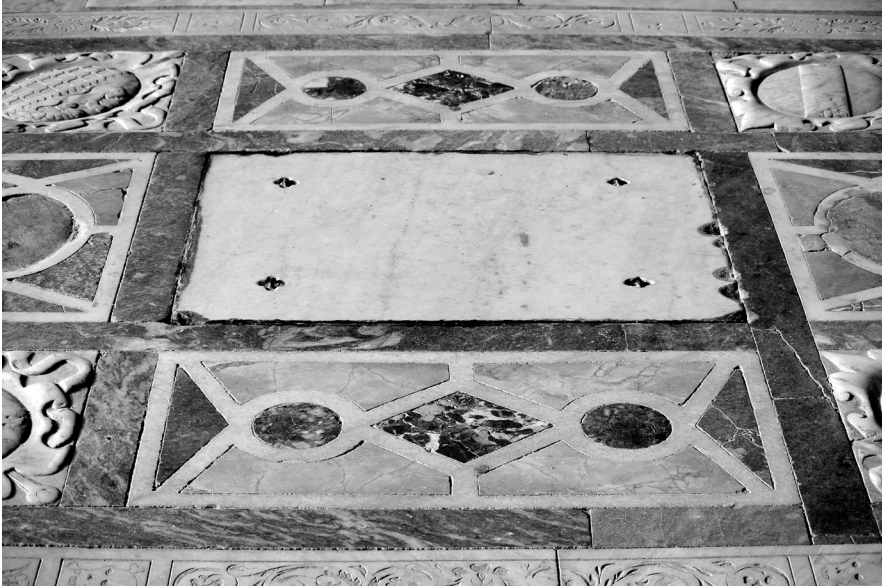


Fig. 1.
Pavement of the nave:
a simple geometric pattern



Fig. 2.
Pavement of the nave:
a more complicated
geometric pattern

a rich decoration based on a more complicated patterns of coloured marble slabs, including lobate shapes and curvilinear contours, inlaid on white marble slabs.

The marbles identified are: Africano, Alabastro listato, Breccia corallina, Broccatello, Fior di Pesco, Giallo antico, Portasanta, Verde antico, Apuanian marbles (white, grey, veined); Giallo di Siena, Libeccio, Portoro and some variegated limestones from the southern Apennines.

*Chancel - The whole pavement is made of black limestone and white marble in alternating trapezia (Fig. 3). The center is occupied by a tombstone framed by a grid of grey marble with rectangular or oval shaped coloured marble slabs; four white marble slabs with coats of arms carved in bas-relief are placed in the corners. The area near the balustrade of the high altar is made of a square grid

of black limestone slabs (elongated hexagon), the squares contain in alternation four triangles of grey and white marble or a quadrilobate floral pattern made of Broccatello.

*High altar - The polygonal stairs leading to the balustrade, encompassing the high altar area, show different patterns. The first and the second stair are made of white marble slabs simply marked by a rectangular band of Broccatello and by halberd elements (Rosso di Contorrana or serpentine) marking the centre and the corners of each stair. The third stair shows a coiled and twisted pattern made of white, green (serpentine), yellow (Giallo di Siena) and red (Rosso di Contorrana) marbles on a black limestone background (Fig. 4).

The pavement around the altar contains some recurring quite octagonal panels with a curvilinear frame made of white marble and Bardiglio including a narrow

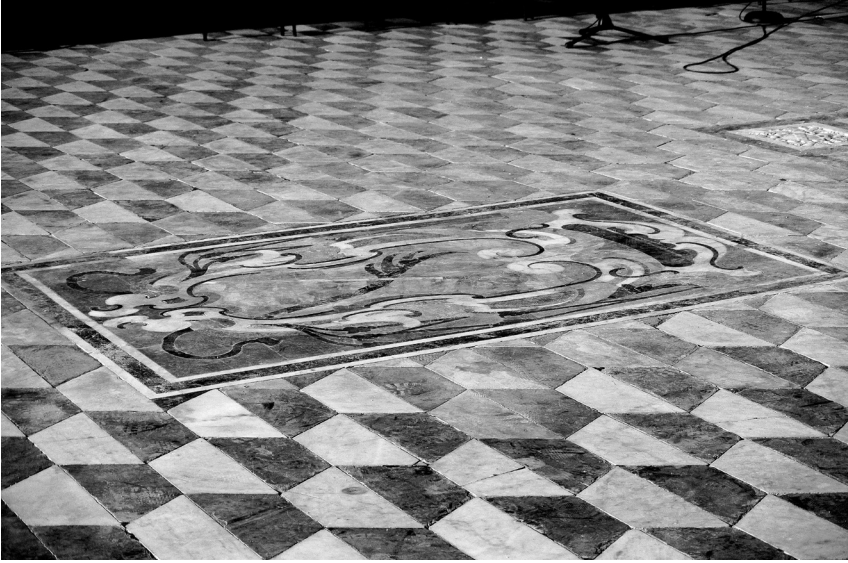


Fig. 3.
Pavement of the chancel
with black and white slabs



Fig. 4.
Detail of the decoration
of the stair to the high altar



Fig. 5.
Pavement of the high altar:
some decay phenomena involve
the marble slabs

strip of Rosso di Contorrana on one side only, in order to give the effect of a third dimension. The central part of each panel is based on a complicated pattern of flowers mainly made of Giallo di Siena, Rosso di Contorrana, white marble and black limestone (Fig. 5).

*Choir - The simple pattern includes a grid of rectangular slab made of grey marble; the grid is filled by alternating square panels with two different motifs: one is made of four triangles (two made of grey marble and two made of white marble) in opposite position; the second one is made of Broccatello quadrilobate flowers set on a white marble background (Fig. 6).

Marble provenance

Marbles employed in the pavement were either expressly quarried as first use or taken from ancient buildings and reused. Those used for the first time were Broccatello (Spain), Giallo di Siena (Tuscany), Libeccio (Sicily), Portoro (Liguria), Rosso di Contorrana (Sicily), Apuanian marbles (white, grey, veined) and black limestone directly supplied for this purpose. In the second group are marbles derived from Roman architecture: Alabastro listato (Latium, Italy); Africano, Breccia corallina (Turkey); Fior di pesco, Portasanta, Verde antico (Greece); Alabaster (Egypt), Giallo antico (Tunisia). Coloured marbles were used in the Roman buildings of "Neapolis" and surrounding towns such as "Cumae", "Puteoli" and "Capua", and then were extensively reused in the Middle Ages and later. Broccatello was employed in Roman times, but in this case the marble came directly from the Tortosa quarries (ÁLVAREZ *et al.* 2009).

A useful comparison about the use of coloured marbles is the pavement of the crypt-like aisled Cappella del Succorpo or Cappella Carafa built in the early 16th century under the chancel of Naples Cathedral. Marbles identified in this chapel are: Africano, Alabaster, Giallo antico, Fior di Pesco, Cipollino, Portasanta, Bardiglio and white (FOLLI 2001).

Setting technique

Techniques used to set the pavement are always the same in spite of the century separating the making of pavements. The first technique involves pieces of marble cut to specific shapes and sizes and fitted together on bedding mortar to make a smooth surface ("*opus sectile*" - Fig. 7); the second involves shaped pieces of coloured marble inserted in larger slabs of white or black marble carved to fit, the bottom of the carved cavity showing traces of a punch and a contour marked by drillwork allowing adhesion between the two slabs in combination with resins ("*inlay*" - Fig. 8).

The "*opus sectile*" pavement was described by Vitruvius (VITRUVIUS 1914, chap. 7.1) together with the

sequence of mortar coats forming the pavement foundation. This Roman technique was then described in 1564 by Giorgio Vasari as a beautiful thing: "The Ancients (...) invented stone pavements diversified with various blending of porphyry, serpentine and granite, with round and square or other divisions, whence they went on to conceive the fabrication of ornamental bands, leafage, and other sort of design and figures" (VASARI 1907, chap. 6). In the Middle Ages and later on the use of coloured marbles lasted in the artisanal tradition of Rome, mainly for the tops of tables or other furniture, thanks to the large availability of material, both from ancient buildings (reuse) and from the huge storage areas that were a legacy of the Roman imperial period.

The term "*inlay*" connotes the insertion of marble pieces in a depression carved on stone base. This technique is called "*commesso alla fiorentina*" thanks to the artistic works produced by the "Opificio delle Pietre Dure" since 1588 in Florence. The heritage of the Florentine Opificio was enhanced by the "Real Laboratorio delle pietre dure" in Naples (since 1737) and by the "Real laboratorio de Piedras Duras" in Madrid (1762-1808).

Another particular inlay technique is reported by Vasari with reference to some sectors of the pavement in the Duomo at Siena (14th to 16th centuries) containing human figures: the contour of each figure, drawn by artists such as Pinturicchio or Domenico Beccafumi, was cut in with chisel on white marble slabs and the hollow was filled with black pitch or asphalt (VASARI 1907, chap 30).

Patterns

Coloured marbles arranged in geometric patterns are visible in some Renaissance and Mannerist paintings: i.e. Pietro Pollaiuolo "The Annunciation" (1470) Berlin, Gemäldegalerie (inv. 73); Luca Signorelli "The Descent of the Holy Spirit" (1494) Urbino, Galleria Nazionale delle Marche; Francesco Botticini "Madonna and Child Enthroned" (late 15th century), New York, Metropolitan Museum of Art (n.61.235); Giulio Pippi called Giulio Romano "The Circumcision" (early 16th century), Paris, Louvre (inv. 518); Antonio Bazzi called Il Sodoma "The Marriage of Alexander the Great and Roxana" (1517), Rome, Villa Farnesina frescoes; Jacopo Robusti called Tintoretto "The Washing of the Feet" (1548-49), Madrid, Museo del Prado; Paolo Caliari called Veronese "The Wedding at Cana" (1563), Paris, Louvre (inv. 142); Tintoretto "The Last Supper" (1592), Venice, San Giorgio Maggiore.

Geometric patterns are also a specific feature of the contemporary tabletops (late 16th century) created both in Rome and in Florence (GIUSTI 1988; GONZALEZ-PALACIOS 2001, 19-55).

The pavement of the cited Cappella del Succorpo, made in the early 16th century, shows geometric patterns

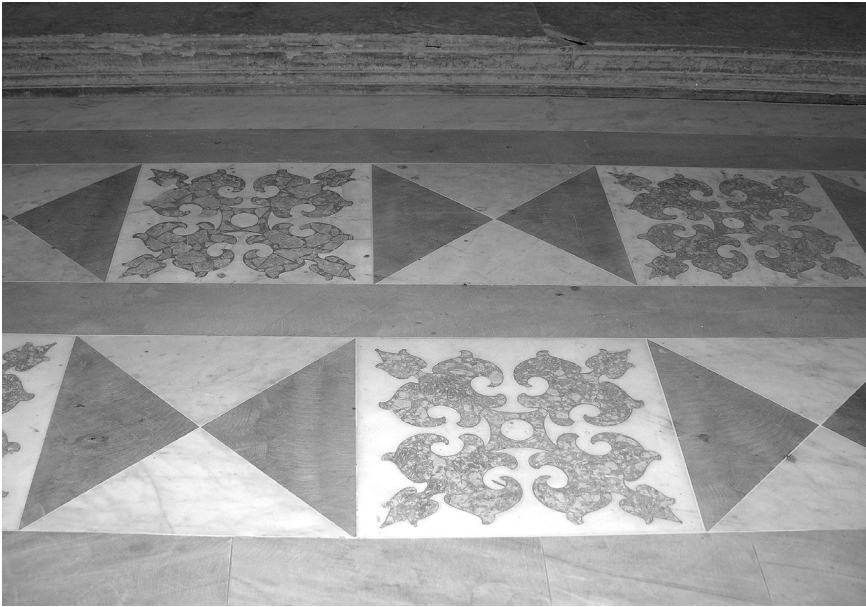


Fig. 6.
Pavement of the choir: a
simple pattern based on
black and white slabs

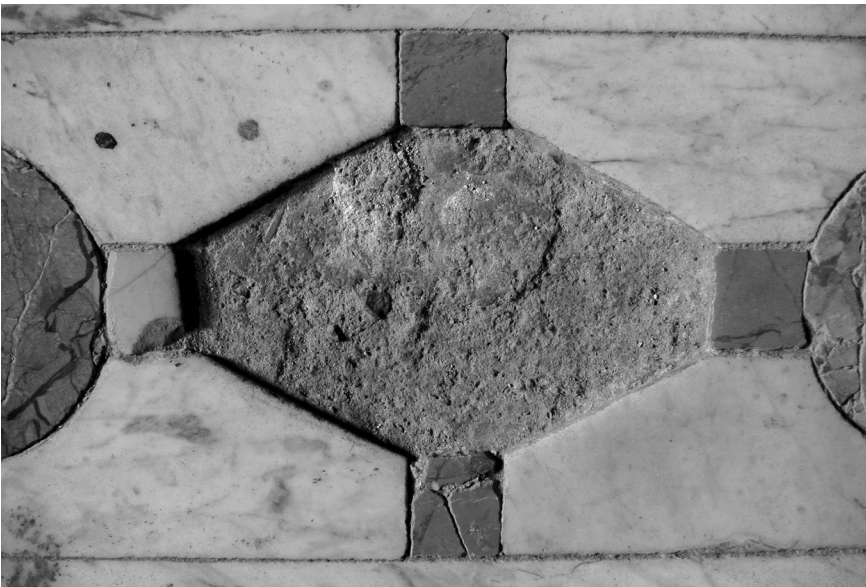


Fig. 7.
Example of “*opus sectile*”
technique; the bedding mortar
can be seen where one marble
slab is missing



Fig. 8.
Example of “inlay”
technique; the carved
cavity can be seen where
one marble slab is missing

based on the square, circle and rhombus using small sized slabs, quite similar to the Cosmati works, diffused in medieval churches of Rome and other towns of Central Italy.

Patterns of the high altar area are typical of Neapolitan Baroque: an outstanding example is the pavements of the nave and the chapels in the church of Certosa di San Martino made according to plans of Cosimo Fanzago (BUGINI, CINQUEGRANA 2015). The pattern of the pavement of the choir is quite similar to the pavement of the choir of the Certosa church (CANTONE 1984).

Dilapidation

The one-time presence of congregations at mass and today that of tourists has exposed parts of the pavement to continuous treading that wears away the material with different intensity according to the different resistance of each stone. The erosion is at a maximum on white marble panels worked in bas-relief and it is also present on the slabs of other marble (i.e. Giallo di Siena) or limestone (i.e. Broccatello). Cracking is a very diffused form of dilapidation: the slabs are often subdivided into small splinters. These splinters can break off, causing a gap in the pavement. Inlay work often shows the loss of small slabs caused by a lack of sealing or by a progressive cracking of the same slab: the result is a void in the supporting stone.

The pavements around the high altar, where visitors do not go, are obviously in better condition than the nave pavement, but some cracks and loss of splinters are visible.

Conclusion

The church of the monastery of Santi Severino e Sossio in Naples contains a series of pavements illustrating the changes occurring in this kind of artefact between the Counter-Reformation and the Baroque (late 16th - late 17th centuries). The older pavement is made by a series of different sections involving geometric patterns of coloured marble (Africano, Alabaster, Breccia corallina, Broccatello, Fior di pesco, Giallo antico, Giallo di Siena, Libeccio, Portasanta, Portoro; Verde antico) in a grid made of marbles from the Apuanian Alps. The Baroque pavements of the chancel and of the choir are based on a simple square pattern made of grey and white triangles. The pavement around the high altar made by Cosimo Fanzago, the most important architect of the Neapolitan Baroque, contains a lower number of coloured marbles (Giallo di Siena, Rosso di Contorrana, Bardiglio, white and black) arranged in complicated patterns based on curvilinear floral motives and surrounded by a frame made of white or grey marble. Two different sources of marble were exploited in both periods: the purchase of marble from quarries in Spain (Tortosa) and Italy (Apuanian Alps, Siena); reuse of marbles

already employed in the Roman architecture of "Neapolis" (ancient coloured marble). Two different techniques were employed to set the marble slab: "*opus sectile*" on a mortar bedding and inlay or "*commesso alla fiorentina*" on a carved marble or limestone background.

REFERENCES

- ÀLVAREZ A., DOMÈNECH A., LAPUENTE P., PITARCH A., ROYO J. 2009: Marbles and stones of Hispania. Institut Català de Arqueologia Clàssica, Tarragona.
- BORGHINI G. 1989: Marmi antichi, De Luca, Roma.
- BUGINI R., CINQUEGRANA L. 2015: "The use of coloured marbles in the Neapolitan baroque: the work of Cosimo Fanzago (1591-1678)", in ASMOSIA X, 469-474.
- CANTONE G. 1984: Napoli barocca e Cosimo Fanzago. Banco di Napoli, Napoli.
- CANTONE G. 2002: Napoli barocca, Laterza, Bari.
- DOLCI E., NISTA L. 1992: Marmi antichi da collezione. Museo del Marmo, Carrara.
- FOLLI L. 2001: "I marmi del pavimento in Duomo di Napoli", in D. M. Pagano (ed.): Restauro della Cripta di San Gennaro, Bari, 55-78.
- GIUSTI A. M. 1988: Splendori di Pietre Dure, Giunti, Firenze.
- GNOLI R. 1988: Marmora romana, Edizioni dell'Elefante, Roma.
- GONZALEZ-PALACIOS A. 2001: Las colecciones reales españolas de mosaicos y piedras duras, Museo Nacional del Pardo, Madrid.
- LAZZARINI L. 2004: Pietre e marmi antichi, CEDAM, Padova.
- LAZZARINI L. 2007: I marmi colorati della Grecia antica, Fabrizio Serra Editore, Pisa-Roma.
- MIELSCH H. 1985: Buntmarmor aus Rom in Antikenmuseum Berlin, Staatliche Museen Preußischer Kulturbesitz, Berlin.
- NAPOLIONR C. 2001: Delle pietre antiche di Faustino Corsi romano, Franco Maria Ricci, Milano.
- PANE R. 1939: Architettura dell'età barocca in Napoli, E.P.S.A. Editrice Politecnica, Napoli.
- PENSABENE P., BRUNO M. 1998: I marmi della collezione Podesti, L'Erma di Bretschneider, Roma.
- PRICE M.T. 2007: Decorative stone - The complete sourcebook, Thames & Hudson, London.
- VASARI G. 1907: Vasari on technique being the Introduction (...) to the Lives of the most excellent painters, sculptors and architects (L. MacLehose ed.), Dent, London.
- VITRUVIUS 1914: On architecture (M.H. Morgan ed.), Harvard University Press, Harvard.