# Marbles Discovered on the Site of the Forum of Vaison-la-Romaine (Vaucluse, France): Preliminary Results

Roux, Elsa; Mignon, Jean-Marc; Blanc, Philippe; Blanc, Annie

Source / Izvornik: ASMOSIA XI, Interdisciplinary Studies on Ancient Stone, Proceedings of the XI International Conference of ASMOSIA, 2018, 373 - 378

Conference paper / Rad u zborniku

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

https://doi.org/10.31534/XI.asmosia.2015/02.22

Permanent link / Trajna poveznica: https://urn.nsk.hr/urn:nbn:hr:123:449814

Rights / Prava: In copyright/Zaštićeno autorskim pravom.

Download date / Datum preuzimanja: 2024-04-25



Repository / Repozitorij:

FCEAG Repository - Repository of the Faculty of Civil Engineering, Architecture and Geodesy, 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

# **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









	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 Patrizio Pensabene	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 Massimiliano David, Stefano Succi and Marcello Turci	22
	Alabaster. Quarrying and Trade in the Roman World: Evidence from Pompeii and Herculaneum	
	Simon J. Barker and Simona Perna	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 Simon J. Barker and J. Clayton Fant	65
	Marble Wall Decorations from the Imperial Mausoleum (4 <sup>th</sup> C.) and the Basilica of San Lorenzo (5 <sup>th</sup> 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  Dorothy H. Abramitis and John J. Herrmann	89
	The Re-Use of Monolithic Columns in the Invention and Persistence of Roman Architecture  Peter D. De Staebler	95
	The Trade in Small-Size Statues in the Roman Mediterranean: a Case Study from Alexandria Patrizio Pensabene and Eleonora Gasparini	101
	•	101
	The Marble Dedication of Komon, Son of Asklepiades, from Egypt:  Material, Provenance, and Reinforcement of Meaning  Patricia A. Butz	109
	Multiple Reuse of Imported Marble Pedestals at Caesarea Maritima in Israel  Barbara Burrell	117
	Iasos and Iasian Marble between the Late Antique and Early Byzantine Eras	123

	Thassos, Known Inscriptions with New Data  Tony Kozelj and Manuela Wurch-Kozelj	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)	
	· · · · · · · · · · · · · · · · · · ·	
	Ruth Taylor, Oliva Rodríguez, Esther Ontiveros, María Luisa Loza,	1.42
	José Beltrán and Araceli Rodríguez	143
	Giallo Antico in Context. Distribution, Use and Commercial Actors According	
	to New Stratigraphic Data from the Western Mediterranean (2 <sup>nd</sup> C. Bc – Late 1 <sup>st</sup> C. Ad)	
	Stefan Ardeleanu	155
	Augsthustus, Amaient Duopouties and Isomographic Colostion	
	Amethystus: Ancient Properties and Iconographic Selection  Luigi Pedroni	167
	278,7 200,000	
2.	PROVENANCE IDENTIFICATION I: (MARBLE)	
	Unraveling the Carrara – Göktepe Entanglement	
	Walter Prochaska, Donato Attanasio and Matthias Bruno	175
	Transfer Trochasta, Donato Ittanasio ana Fiannas Drano	173
	The Marble of Roman Imperial Portraits	
	Donato Attanasio, Matthias Bruno, Walter Prochaska and Ali Bahadir Yavuz	185
	Tracing Alabaster (Gypsum or Anhydrite) Artwork Using Trace Element Analysis	
	and a Multi-Isotope Approach (Sr, S, O)	
	Lise Leroux, Wolfram Kloppmann, Philippe Bromblet, Catherine Guerrot,	
	Anthony H. Cooper, Pierre-Yves Le Pogam, Dominique Vingtain and Noel Worley	195
	Thintony 11. Cooper, There Ives De Logani, Dominique vingiain and Ivel Worldy	173
	Roman Monolithic Fountains and Thasian Marble	
	Annewies van den Hoek, Donato Attanasio and John J. Herrmann	207
	Archaeometric Analysis of the Alabaster Thresholds of Villa A, Oplontis	
	(Torre Annunziata, Italy) and New Sr and Pb Isotopic Data for	
	Alabastro Ghiaccione del Circeo	
	Simon J. Barker, Simona Perna, J. Clayton Fant, Lorenzo Lazzarini and Igor M. Villa	215
	Roman Villas of Lake Garda and the Occurrence of Coloured Marbles	
	in the Western Part of "Regio X Venetia et Histria" (Northern Italy)	
	Roberto Bugini, Luisa Folli and Elisabetta Roffia	231
	Roberto Dugini, Luisu Fotti una Lusubetta Rojjia	231
	Calcitic Marble from Thasos in the North Adriatic Basin:	
	Ravenna, Aquileia, and Milan	
	John J. Herrmann, Robert H. Tykot and Annewies van den Hoek	239
	Characterisation of White Mouble Objects from the Towns Lot A will	
	Characterisation of White Marble Objects from the Temple of Apollo	
	and the House of Augustus (Palatine Hill, Rome)	2.45
	Francesca Giustini, Mauro Brilli, Enrico Gallocchio and Patrizio Pensabene	247
	Study and Archeometric Analysis of the Marble Elements Found	
	in the Roman Theater at Aeclanum (Mirabella Eclano, Avellino - Italy)	
	Antonio Mesisca, Lorenzo Lazzarini, Stefano Cancelliere and Monica Salvadori	255

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

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

3.

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

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

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

#### ASMOSIA XI, INTERDISCIPLINARY STUDIES OF ANCIENT STONE, SPLIT 2018

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

# MARBLES DISCOVERED ON THE SITE OF THE FORUM OF VAISON-LA-ROMAINE (VAUCLUSE, FRANCE): PRELIMINARY RESULTS

Elsa Roux<sup>1</sup>, Jean-Marc Mignon<sup>2</sup>, Philippe Blanc<sup>3</sup> and Annie Blanc<sup>4</sup>

<sup>1</sup> IRAA Université Aix-Marseille (elsa.roux.89@gmail.com)
 <sup>2</sup> Direction de la Culture, département Vaucluse (mignon-jm@cg84.fr)
 <sup>3</sup> Sorbonne Universités UPMC, UMR7193, iSTeP, Paris, France (philippe.blanc@upmc.fr)
 <sup>4</sup> Paris, France (philippe.blanc64@sfr.fr)

#### **Abstract**

Since May 2013, during the new archaeological excavations at the forum of Vasio Vocontiorum, archaeologists have discovered a large amount of slabs and fragments made of coloured marble, ornamental and architectural elements made of white marble and limestone, as well as many inscriptions on white marble slabs, and fragments of sculptures. The decoration is currently under study; it includes the main marbles of the Mediterranean basin and some local stones. The main bulk of white marble has also been analysed. Four sources of white marble have been identified: Carrara, Penteli, Proconnesus and Thassos. The dolomitic marble of Thassos is very rarely used in Gaul for architectural elements, but in Vaison, it was used for some inscriptions as well as for wall decoration - the slabs were either left unornamented or sculpted slabs, such as the bas-relief with lionesses. The rich decoration of the forum fits in harmoniously with those of the Roman villae and thermal baths of the city.

#### Keywords

white marble, coloured marble, slabs, ornamental elements, forum, Vaison

#### Introduction

During the preventive archaeological evaluation that took place along Avenue Jules Ferry (La Merci 17-22 Merci Jules Ferry), prior to the construction of an accommodation center for the disabled, archaeologists discovered some remains, monumental in size, that might have been a part of the antique forum<sup>1</sup>. Since 2013, three excavation campaigns have been carried out. An important set of marble fragments was discovered and was the starting point of this

study. By presenting other Vaison sites and in comparison with Orange, we can understand better the particularity of marble use in Vaison and the role of local limestone. In the following we will present the first results of the research.

#### The archaeological context

The site was occupied from the first century B.C. to the Middle Ages, six principal phases of occupation having been established.

The site was probably a residential neighbourhood at first (phase I), until the construction of the forum in the course of the 1st century AD (phase II). The newly discovered remains belong in fact to the western portico, which includes a stylobate<sup>2</sup> and five large columns<sup>3</sup>. The size of the remains indicates that this was once a monumental building4 (Fig. 1). The pillaging and destruction of the monumental complex seem to begin in the end of the 3rd century, and continue all throughout the 4th century, until the early 5th century (phase III). The looting phase is characterized by the layer of unused material, accumulated in the northwest corner of the esplanade. It is within these very abundant discharges that the numerous fragments of opus sectile wall decoration made with coloured marbles were found, as well as various fragments of inscriptions carved on white marble slabs or on limestone steles.

## Construction material used in the Forum and other buildings in Vaison-la-Romaine

The Roman and medieval buildings of Vaison are primarily made of small ashlars of fine grained cretaceous (Barrèmien-Bédoulien) white-beige limestone.

1 MIGNON, DORAY 2011, 49.

<sup>2</sup> Width: 1.50 m.

<sup>3 87</sup> centimeters in diameter.

<sup>4</sup> MIGNON, DORAY 2011, 49.



Fig. 1. Vaison-la-Romaine, Forum, stylobate and columns on the portico carved in local limestone (photo: J. M. Mignon)

The quarries were situated near the city – one west of it, the Théos hill (colline de Théos), three in the southwest – Les Roussillons, Ravin de Mars, Sainte-Catherine, and one east of Vaison – by the road to Malaucène. These quarries were exploited until the 19<sup>th</sup> century; nevertheless, due to the layer thickness (15-20 cm), they provided only small blocks. For the bigger dimension stones, a shelly limestone was imported from the quarries situated at Beaumont-du-Ventoux. These quarries, exploited until the 1950s, contained a Burdigalian limestone deposit.

Numerous fragments found at the site of the forum are carved in Beaumont-du-Ventoux limestone, but we have also found some elements carved in fine-grained cretaceous limestones. We could presume that at the moment this building was made, the layer thickness in the quarries was much more important, thus providing stone blocks for the large-dimensioned bases and cornices<sup>5</sup>.

## Marbles and decorative stones used in the decoration of the forum

The identification of marbles was made by microscopic observation of the grain size and the minerals. The decoration is currently under study; it includes the main coloured marbles of the Mediterranean basin and Gallic and local stones. The study of the marble revealed the use of fifteen varieties of coloured marble (Fig.2), which we will present according to their geographical origin, and four different kinds of white marble.

Three of the varieties come from quarries located in the territory of modern France: micritic fine grains limestone (Quarry near Vaison), **schist from Autun** 

5 See the geological map, 1/50 000 Vaison-la-Romaine, n°915, BRGM, Orléans, 1991.

(Saône-et-Loire, France) and **yellow breccia** (maybe breccia of Lez, Pyrénées, France).

One type comes from Italy: *Bardiglio* from Carrara (Quarry from Luni)

Six are from Greece and the Greek Islands: **Antique green porphyry**<sup>6</sup> (Laconia, Peloponnese Greece), **Rosso antico**<sup>7</sup> (Peninsula of Mani, Southern Peloponnese, Greece), **Fior de pesco**<sup>8</sup> (Eretria, Euboea, Greece), **Cipollino verde**<sup>9</sup> (quarry from Karistos and Styra, Euboea, Greece), **Semesanto**<sup>10</sup> (breccia from Sciro) and **Verde antico**<sup>11</sup> (Thessaly, Greece).

Three are from Africa: *Giallo antico*<sup>12</sup> (Tunisia Chemtou), **red and black porphyries**<sup>13</sup> (Egypt) and *Granito dell'foro* (?)<sup>14</sup> (Egypt).

<sup>6</sup> Marmor lacedaemonium, lapis iacedaemonius, krokeatis lithos. GNOLI 1992, 279-280, n° 121; LAZZARINI 2002, 254-25; LAZZARINI 2007, 45-69.

<sup>7</sup> *Marmor taenarum.* GNOLI 1992, 288, n° 126; LAZZA-RINI 2007, 71-96.

<sup>8</sup> *Marmor Chalcidicum.* GNOLI 1992, 212, n° 63; LAZZA-RINI 2002, 260-261.

<sup>9</sup> *Marmor carychium, Marmor styrium.* GNOLI 1992, 202-203; LAZZARINI 2002, 257-258.

<sup>10</sup> Marmor scyreticum. GNOLI 1992, 290, nº 128.

<sup>11</sup> *Marmor thessalicum, lapis atracius.* GNOLI 1992, 292-293, n° 130; LAZZARINI 2002, 261-262.

<sup>12</sup> *Marmor numidicum*. GNOLI 1992, 214-215 n° 65; LAZZARINI 2002, 243-244.

<sup>13</sup> Lapis porphyrites, lithos romaion. GNOLI 1992, 274, n° 116; LAZZARINI 2002, 233-235.

<sup>14</sup> *Marmor claudianum*. GNOLI 1992, 222-223; LAZZARINI 2002, 235-236.

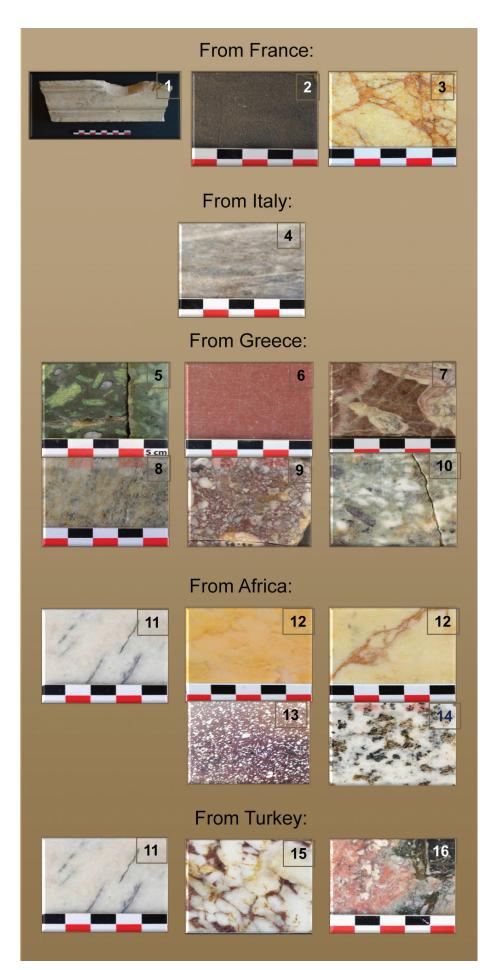


Fig. 2. Vaison-la-Romaine, Forum, different examples of coloured marbles used for the decoration. 1: micritic fine grained limestone (quarry near Vaison); 2: Schist from Autun (Saône-et-Loire, France); 3: Yellow breccia (may be breccia of Lez, Pyrénées, France); 4: Bardiglio from Carrara (quarry from Luni); 5: Antique green porphyry (Laconia, Peloponnese Greece); 6: Rosso antico (Peninsula of Mani, Southern Peloponnese, Greece); 7: Fior de pesco (Eretria, Euboea, Greece); 8: Cipollino verde (Quarry from Karistos and Styra, Euboea, Greece); 9: Semesanto (Breccia from Sciro); 10: Verde antico (Thessaly, Greece); 11: Greco scritto (near Ephesus, Turkey); 12: Giallo antico (Tunisia Chemtou); 13: Red and black porphyries (Egypt); 14: Granito dell'foro? (Egypt); 15: Breccia pavonazzetto (Afyon, Synnada, Dokimeion, Turkey); 16: Africano (near Teos, Turkey). (DAO E. Roux)



Fig. 3. Vaison-la-Romaine, Forum, cornice, white Carrara marble (photo: E. Roux)

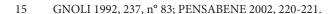
Three come from Turkey: *Greco scritto*<sup>15</sup> (near Ephesus, Turkey), *Breccia pavonazzetto*<sup>16</sup> (Afyon, Synnada, Dokimeion, Turkey) and *Africano*<sup>17</sup> (*Teos*, Turkey).

Only *fior de pesco, rosso antico*, pavonazzetto and micritic fine grained limestone were used to carve cyma mouldings. The other types of marble were cut in slabs of variable thickness. All the plates were arranged in wall decorations. Many holes for fixing the clamps are still visible. For now, we have not identified any elements that would have been a part of a floor decoration.

As for white marbles, we have examined the size of the grains and the minerals through a magnifying glass. We had to examine a great number of slabs without decoration on them, it was impossible to undertake a careful study of each single element. So we choose to sort them in four main types, according to some simple characteristics.

**Carrara type**<sup>18</sup>: white marble with fine grain, pure white or finely veined (53 kg)

**Penteli type**<sup>19</sup>: white marble with fine grain containing fine veins or white flakes of mica (45 kg)



<sup>16</sup> *Marmor docimium; Syndicus; phrygium.* GNOLI 1992, 264-265, n° 109; PENSABENE 2002, 205-207.



Fig. 4. Vaison-la-Romaine, Forum, cornice, white Pentelic marble (photo: E. Roux)

**Proconnesus type**<sup>20</sup>: bluish-white marble with medium grain, which gives off an odour when struck (8 kg)

**Thassos type**<sup>21</sup>: white marble with large and shiny grains, dolomitic (not reactive to the test with dilute hydrochloric acid) (77 kg)

White marbles were used to make slabs, the most common being Thassos dolomite marble, then Carrara and Pentelic marbles, and very rarely Proconnesian marble. Decorative elements are mainly made of Carrara marble, especially statuary and applied architecture, like cornices with modillions (Fig. 3). Pentelic marble was used for some large cornices (Fig. 4), similar to those made of Carrara marble.

White dolomitic Thassos marble is employed for engraving inscriptions and decorated slabs like, for instance, the relief with lionesses (Fig. 5). Some architectural appliques, such as archivolts or fluted pilasters, are also made of white Thassos marble.

## Preliminary study of the decorations and inscription on white marble slabs

The whole batch of marble is under study, in order to provide an exhaustive inventory of the decorative elements and classify all the types of decoration found in this set of marble. The first observations have shown us the presence of various decorative sets made of marble slabs bearing reliefs from a monumental architectural order,

<sup>17</sup> *Marmor Lucullum*. GNOLI 1992, 133-135, n° 1; LAZZA-RINI 2002, 250-251.

<sup>18</sup> Marmo Lunense, lapis lunensis. PENSABENE 2002, 112-114.

<sup>19</sup> Marmo pentelico. GNOLI 1992, 251, nº 98; PENSABE-NE 2002, 207-208.

<sup>20</sup> *Marmor proconnesium.* GNOLI 1992, 252, n° 99; PENSA-BENE 2002, 203-204.

<sup>21</sup> *Marmo Greco duro.* GNOLI 1992, 253; PENSABENE 2002, 208-212.



Fig. 5. Vaison-la-Romaine, Forum, the Lioness relief, white dolomitic Thassos marble (photo: E. Roux)

and then elements of bay decoration and a smaller architectural order, that belong to some additional architecture.

Most of the fragments in the batch are in fact slabs of coloured marbles, used in various types of decoration, including elements belonging to a wall-decorating *opus sectile* (small pieces), to a great ornamental set with large geometric slabs, and very thin plates, which were probably part of an *opus interrasiles*.

Many inscriptions and fragments have been found, and they are currently being studied by Benoît Rossignol. Four writings are carved on white marble plaques (Penteli, Carrara, Thassos and Proconnesus). One of the biggest and most beautiful (2.14 m) is made of Proconnesus marble. It is an honorary inscription bearing the name of Marcus Titius Lustricus Bruttianus, celebrating his *cursus honorum*. With a width more important than its height, it may have adorned the pedestal of an equestrian statue. However, at this time, we still do not know which building it comes from.

#### Comparison with some other buildings in Vaison

The marbles discovered elsewhere in Vaison have been, or are currently being studied. The petrographic analysis of the marbles in the north Thermae and the Maison du Paon gives us an example of the broad range of stones used in this city. Many of the wall facings in the north public baths include imported marbles, such as Cipollino verde, Giallo antico, Fior de pesco, Africano, Pavonazzetto, Greco scritto, Verde antico, Semesanto, Antique green porphyry, Rosso antico and Bardiglio from Carrara. We have two types coming from France – schist from Autun, Guillestre's pink marble, and micritic limestone, and, in a very small quantity, red griotte from the

Pyrenees. Unlike what we see in the forum, only two types of white marble are used in the Thermae, either as wall facings or mouldings. The Penteli type can be found in great quantities (over 500 kg), whereas the Proconnesus type was used in smaller amounts (about 70 kg).

In the Maison du Paon, we can find some similar choices, with the exception of *Africano*, *Verde antico*, red porphyry and *Portasanta*. As for the various white marbles, we have identified three types in the marble batch – Penteli, Proconnesus, and Carrara, the last one being the most frequently used.

This comparative study allowed us to draw attention to the great variety of marble types used in these three buildings. According to our statistics, Carrara white marble was frequently used all over the city, as well as for the decoration of the Forum and the Maison du Paon. The Penteli type has been found on all three sites and is the main component in the decoration of the public baths. The Proconnesus type is present on every site, but was used in much smaller quantities. This marble type was later reused in the cloister of the cathedral. The Thassos type was only found on the Forum. Could this possibly indicate the desire to enhance the prestige of the decoration of the Forum?

The use of marble in Vaison seems quite unique: marble plates are mostly used as veneer and to this day, we have found no large monolithic columns. This specificity is even more particular if we compare Vaison with the nearby town of Orange.

#### Comparison with the theatre of Orange

The decoration of the Roman theatre of Orange is particularly rich and varied. All the existing elements are kept in the museum and its store rooms. The analysis of the white marbles, published by F. Antonelli, L. Lazzarini and B. Turi<sup>22</sup>, has shown that Carrara marble was used for the ornaments and sculptures. As for the columns, the researchers have identified at least seven different varieties of granite, marble and breccia. Many column shafts are made of fine-grained gray granite.

This large number of column shafts coming from North Africa or Asia Minor could be explained by the geographical position of Orange. The city is situated near the Rhône, and the heavy and cumbrous shafts could be brought by ship. Vaison-la-Romaine, on the other hand, is more than 25 km east of the Rhône, crossed by a much smaller river, which made the transport of heavy material difficult, if not impossible. Nonetheless, in Vaison we do find a large array of coloured marbles, as well as elements made of dolomitic marble coming from Thassos.

22

#### Conclusion

This study shows clearly that Vaison-la-Romaine may have been influenced by the Mediterranean and Italian uses of marble. The most prestigious and widely used marbles in the Empire are present. However, in Vaison, unlike in Orange, the marbles were used only for decoration, while the structural parts are of local limestone. Moreover this kind of use of Thassos marble is exceptional for Roman Gaul; as a matter of fact, white Thassos marble is very rare, and is absent in Narbonne and Orange, for example. It was used for statuary in Arles<sup>23</sup> and a few fragments of marble facing have been found in the 2<sup>nd</sup>-century domus of La Verrerie at Trinquetaille (Arles). Therefore, the forum of Vaison shows us a very original decoration.

#### **BIBLIOGRAPHY**

- ANTONELLI F., LAZZARINI L., TURI B. 2002: "The provenance of white marble used in roman architecture of Arausio (Orange, France): first results", ASMOSIA VI, Padova, 265-270.
- BLANC PH., BROMBLET PH., LEROUX L. 2012: "White marbles provenance study of Caesar's head and other major sculptures found in the Rhône river at Arles (France)", ASMOSIA IX, Tarragona, 401-406.
- BROMBLET PH., BLANC PH. 2012: "Identification des provenances des marbres blancs des sculptures trouvées dans le Rhône à Arles", colloque Arles, octobre 2012 [in press].
- GNOLI R. 1992: "Répertorio: selezione dei marmi e consulenza", in G. BORGHINI (ed.): Marmi antichi, Rome, 131-300.
- LAZZARINI L. 2002: "La determinazione della provenienza delle pietre decorative usate dai Romani", in M. DE NUCCIO, L. UNGARO (eds.): I marmi colorati della Roma Imperiale. Catalogo della mostra (Roma 28 settembre 2002-19 gennaio 2003), 223-266.
- LAZZARINI L. 2007: Poikiloi lithoi, versiculores maculae: I marmi colorati della Grecia antica, suppl. Marmora 2/ 2006, Pise - Rome.
- MIGNON J.-M., DORAY I. 2011: "Le Forum de Vaisonla-Romaine", in X. DELESTRE, D. LAVERGNE (eds): Vaison antique: découvertes archéologiques récentes, Paris, 49-52.
- PENSABENE P. 2002: "Le principali cave di marmo bianco", in M. DE NUCCIO, L. UNGARO (eds.): I marmi colorati della Roma Imperiale. Catalogo della mostra (Roma 28 settembre 2002-19 gennaio 2003), 203-222.

<sup>23</sup> BROMBLET, BLANC 2012; BLANC, BROMBLET, LEROUX 2012, 401- 406.