

Sabine Ladstätter – Walter Prochaska – Vasiliki Anevlavi (Eds.)

# **ASMOSIA XIII**

Proceedings of the 13<sup>th</sup> International Conference



SABINE LADSTÄTTER – WALTER PROCHASKA – VASILIKI ANEVLAVI (EDS.)

# ASMOSIA XIII

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# TABLE OF CONTENTS

## Volume I

<b>Preface of the Editors</b> .....	13
<b>ASMOSIA Proceedings I–XIII</b> .....	15
<b>Applications to Specific Archaeological Questions: Use of Marble</b>	
Kouros-Stories. An Educational Programme about the Marble Kouros of Naxos Island, Greece <i>Emmanouil Anevlavis – Aikaterini Panagiotopoulou – Vasiliki Anevlavi</i> .....	19
Typological Study of the Moulded Marble Slabs as Part of the Wall Decoration of the Frigidarium in the Monumental Thermal Complex of Valeria (Cuenca, Spain) <i>Javier Atienza Fuente</i> .....	27
Iasos Red Cipollino Slabs. From Use in Cladding to their Pictorial Imitation <i>Fede Berti – Diego Peirano</i> .....	43
The Pavonazzetto-like Marbles and the Images of Barbarians. A Statue of an Easterner in Beyler Breccia from Rome <i>Matthias Bruno – Eleonora Ferrazza</i> .....	57
Late Use of Coloured Marbles in Italy (1860–1915) <i>Roberto Bugini – Luisa Folli</i> .....	69
Coloured Marbles of the Imperial Palace on the Palatine Hill. Research Insights <i>Francesca Caprioli – Alessandro Mortera – Patrizio Pensabene</i> .....	83
Fossiliferous Stones and Fossils and their Glass Skeuomorphs in Antiquity <i>Miguel Cisneros – Esperanza Ortiz – Juan Á. Paz</i> .....	101
Euromos Marble (Greco dislocato). Conspicuous and Inconspicuous: Column Shafts in Italy, Croatia, Cyprus, and Tyre <i>Julia E. Cox – John J. Herrmann, Jr. – Annewies van den Hoek – Sabrina Violante</i> .....	115
Reflections on White Marbles at Labraunda. Conservation and Research <i>Agneta Freccero</i> .....	123
Exportation of Prefabricated Statues from Thasos <i>John J. Herrmann, Jr. – Donato Attanasio – Robert H. Tykot – Annewies van den Hoek</i> .....	137
The Use of Proconnesian Marble in the Architecture of Imperial Ephesos. An Archaeological Evaluation <i>Sophie Insulander</i> .....	149

Incompleteness and Imperfection in the Architectural Decoration of Diocletian's Palace in Split <i>Daniela Matetić Poljak – Katja Marasović</i> . . . . .	159
Marmora Reused in the Church of Santa María de la Oliva (Lebrija, Seville, Spain) <i>Diego Romero Vera – Daniel Becerra Fernández</i> . . . . .	175
Since When Have Stone Slabs Been Laid Symmetrically – and Why? <i>Raphael Rosenberg</i> . . . . .	185
Roman Marble Statues in Tarraco (Hispania Citerior). Imports and Local Production <i>Julio C. Ruiz</i> . . . . .	197
New Methodologies for the Study of Fragmentary Marbles (Oplontis Villa B) at Torre Annunziata, Italy <i>Rita Scognamiglio</i> . . . . .	207
A Roman Doric Portico of Naxian Marble at Alexandria Troas <i>Robert H. Tykot – John J. Herrmann, Jr. – Annewies van den Hoek</i> . . . . .	217
<b>Provenance Identification I: Marble</b>	
Analysis and Discrimination of Ancient Red Marbles Including Rosso Antico from Cape Tainaron and Asiatic Red Varieties from Caria <i>Donato Attanasio – Matthias Bruno – Walter Prochaska – Ali Bahadır Yavuz</i> . . . . .	225
Cathodoluminescence of Thasian Calcitic Marble Architectural Decoration of Early Byzantine Times in Varna, Bulgaria <i>Vincent Barbin – Rémy Chapoulie – John J. Herrmann, Jr. – Aleksander Minchev – Brigitte Spiteri – Vasil Tenekdjiev – Annewies van den Hoek</i> . . . . .	243
Local Green ›Marbles‹ in Augusta Praetoria (Aosta, Northern Italy) <i>Maurizio Castoldi</i> . . . . .	251
Inscriptions and their Marble(s). Some Examples from Roman Corinth <i>Chiara Cenati – Vasiliki Anevlavi – Walter Prochaska – Laura Nastasi – Sabine Ladstätter (†)</i> . . . . .	261
Geological Provenance of Roman Building and Ornamental Stones Used in the Colonia Clunia Sulpicia (Hispania Tarraconensis) <i>José Antonio Cuchí – María Pilar Lapuente Mercadal – Francesc Tuset – Rosa Cuesta</i> . . . . .	281
In Light of New Data. Preliminary Results of the Provenance Analysis of the 6 <sup>th</sup> -Millennium BC Small Marble Artefacts from Ulucak Höyük and Uğurlu Höyük, West Anatolia and Northeastern Aegean Türkiye <i>Murat Dirican – Vasiliki Anevlavi – Walter Prochaska – Sabine Ladstätter (†) – Burçin Erdoğan – Özlem Çevik</i> . . . . .	293
Marble in the Musée National d'Archéologie de Sétif (Ancient Setifis), Algeria. Provenance Investigations with pXRF and Isotopes of Carbon and Oxygen <i>John J. Herrmann, Jr. – Robert H. Tykot – Annewies van den Hoek</i> . . . . .	303

The Lusitanian Estremoz Anticline, the Main Marble Source in the Western Roman Empire <i>María Pilar Lapuente Mercadal – Trinidad Nogales-Basarrate</i> . . . . .	313
White Marbles from Asia Minor at Roman Athens. New Provenance Identification Research on Figural Sculptures from the Agora <i>Yannis Maniatis – Brian Martens – Dimitris Tambakopoulos</i> . . . . .	331
Archaeometrical Study of Marmora from the <i>vetus urbs</i> of Italica (Santiponce, Seville, Spain) <i>Esther Ontiveros Ortega – María Luisa Loza Azuaga – Daniel Becerra Fernández – José Beltrán Fortes</i> . . . . .	345
The Marble Provenance of the Pedimental Sculptures of the Athena Alea Temple at Tegea <i>Olga Palagia – Yannis Maniatis</i> . . . . .	363
First Assessment of Marble Exploitation in the Northwest of Spain in Ancient Times <i>Marie-Claire Savin – Anna Gutiérrez Garcia-Moreno – Silvia González Soutelo – María Pilar Lapuente Mercadal</i> . . . . .	377
<b>Provenance Identification II: Other Stones</b>	
Macroscopic Observations of the Marmor Iassense from the Bishopric Church in Pythagoreio (Samos). A Contribution to the Study of the Monument <i>Georgia Delli – Wioletta Tenczar – Vasiliki Anevlavi</i> . . . . .	395
Archaeometric Approaches to Volcanic Tuff in Ancient Rome. The Recent Work of the QUADRATA Project <i>Daniel P. Diffendale – Fabrizio Marra</i> . . . . .	405
The Aeso Marmor (Isona, Lleida) as Epigraphic Media. News from New Trends in Epigraphic and Archaeometric Research <i>Hugo Feliu Pérez – Diana Gorostidi Pi – María Pilar Lapuente Mercadal – Isabel Rodà de Llanza</i> . . . . .	413
A Peculiar Ornamental Stone in the Civitas Treverorum Used in Funeral Monuments and the Ancient Theatre of Dalheim (Grand Duchy of Luxembourg) <i>Eric Goemaere – Roland Dreesen – Gabrielle Kremer – Robert Colbach</i> . . . . .	423
The Use of Alcover Stone in Roman Times (Tarraco, Hispania Citerior). Contributions to the <i>Officina Lapidaria Tarraconensis</i> II: Evidence of Early Supplies of Epigraphic Materials beyond the City of Tarraco <i>Diana Gorostidi Pi – Isabel Rodà de Llanza – Andrea Collado Padilla</i> . . . . .	435
Column Shafts from Hippo Regius. Quality Selection and Eastern Exportation <i>John J. Herrmann, Jr. – Julia E. Cox – Robert H. Tykot – Annewies van den Hoek – Sabrina Violante</i> . . . . .	441
Stone Provenance of the Antique and Medieval Monuments from Selected Sites in Dalmatia <i>Mirja Jarak – Ana Maričić – Ante Jurčević</i> . . . . .	449
A First Minero-petrographic and Isotopic Characterisation of Marmor Numidicum (Giallo Antico) and Other Similar Yellow Stones <i>Lorenzo Lazzarini</i> . . . . .	463

The Stone Tesserae from the Roman Mosaic Floors of Ancient Messene. First Results on Materials Characterisation and Provenance <i>Elisavet Mantzana – Eleni Zimi – Ioannis Iliopoulos – Nikolaos Zacharias (†)</i> . . . . .	473
Mosaic as <i>opus sectile</i> . Imitation of Coloured Marbles on the Nevioudunum (Drnovo, Slovenia) Mosaic Pavement <i>Jana Puhar</i> . . . . .	485
Tinos Lost in Time Ancient Serpentinite Quarry (Ras, Cyclades, Greece). Multidisciplinary Preliminary Results <i>Alkiviadis Sideridis – Vasiliki Anevlavi – Christoph Hauzenberger – Stylianos Tombros – Vasileios Boumpoulis – Petros Koutsovitis – Anastasia Aggelopoulou</i> . . . . .	495
Zoomorphic Sculptures in Alabaster from the Palatine Hill in Rome <i>Sabrina Violante – Paola Quaranta – Domenico Poggi</i> . . . . .	509

## Volume II

### Advances in Provenance Techniques, Methodologies and Databases

A Pilot Study of the Ancient White Marble Sources in the Eastern Aegean <i>Vasiliki Anevlavi – Walter Prochaska – Sabine Ladstätter (†)</i> . . . . .	15
Stratigraphic Database for Determination of the Provenance of Limestone Used in Colonia Iulia Emona (Regio X, Italia) <i>Rok Brajkovič – Petra Žvab Rožič – Bojan Djurić – Luka Gale</i> . . . . .	27
Lichenometric Dating of Rock Surfaces in Ancient Quarries. A Case Study on Tinos Island (Greece) <i>Thorsten Jakobitsch – Vasiliki Anevlavi</i> . . . . .	43
Lost in the Forest and Found by LiDAR. The Pre-Roman Limestone Quarries at Măgura Călanului (Romania) <i>Aurora Peșan</i> . . . . .	51
Solving Ambiguities among Coarse-grained Grey Granite through Non-destructive Sourcing Techniques Applied to Antiquity <i>Pierre Rochette – Jean-Paul Ambrosi – Valérie Andrieu – Pierre Deschamps – Jerome Gattacceca – Abel Guihou – Andreas Hartmann-Virnich – Patrizia Macrì – Jacques Planchon – Claudia Sciuto</i> . . . . .	65
<b>Quarries and Geology: Quarrying Techniques, Organization, Transport of Stones, New Quarries, Stone Carving and Dressing, Hazards to and Preservation of Quarries</b>	
The Baiae Casts Once Again <i>Fabiano Fiorello Di Bella</i> . . . . .	81
Ashlar Quarrying and Carving in Diachronic City-building Narratives. The Case of Ancient Sagalassos and the Sarikaya Quarry (Southwestern Anatolia) <i>Frans Doperé – Patrick Degryse – Jeroen Poblome</i> . . . . .	93

Ophites, from the Eastern Desert of Egypt to Rome and Campania. A Study of a ›Small-quarry‹ Stone Developed in the Augustan Period <i>J. Clayton Fant – Simon J. Barker</i> . . . . .	107
Tor Cervara, and the Tuff Quarries of the Lower Aniene Valley, Rome <i>Christopher J. Lyles</i> . . . . .	121
Exploitation of the Granite from the Lavezzi Islands (Southern Corsica) in Roman Times. Archaeological and Geological Investigation <i>Nadine Mattielli – Sébastien Clerbois – Antoine Triantafyllou – Henry-Louis Guillaume – Goulven G. Laruelle – Gaël Brkojewitsch – Nicolas Paridaens – Nicolas Authom – Catherine Coquelet</i> . . . . .	133
Alexandria Troas. The Port and the Role of the City in the Distribution of Granite Shafts <i>Patrizio Pensabene – Isabel Rodà de Llanza – Javier Á. Domingo – Eleonora Gasparini</i> . . . . .	149
Purple Porphyry and Other Hard Stone Vases and Urns from the Early Imperial Period. Technology and Transmateriality <i>Simona Perna</i> . . . . .	165
A First Report of the White Marble from the Sangri Valley in Southern Naxos <i>Scott Pike – Kenneth Sheedy – Elena Familetto</i> . . . . .	191
Ancient Quarries of the Dodecanese (Aegean Sea, Greece) and the Use of the Extracted Stones. Recent Exploration and Results <i>Eirene Poupaki</i> . . . . .	199
Quarry Inscriptions, Marks and Epigraphic Signs from the Roman Forum, the Palatine Hill and the Temple of Peace in Rome <i>Sabrina Violante</i> . . . . .	215
The Extraction Techniques of Sculptures. Thasos (Greece) <i>Manuela Wurch-Koželj – Tony Koželj</i> . . . . .	233
<b>Stone Properties, Weathering Effects and Restoration</b>	
Marble and Patina Analysis for Interpreting Sculptures from Antiquarian Collections. A Set from the Museu d'Arqueologia de Catalunya (Barcelona) and the Museo Nacional del Prado (Madrid) <i>Montserrat Claveria</i> . . . . .	249
The Porphyry Obelisk. A Roman Monument of Constantinople <i>George Pinkerton</i> . . . . .	263
<b>Pigments and Paintings on Marble</b>	
Encaustic Painting on Marble Statuary. Hard (or not so Hard) Evidence from the Group of Boston 00.348 Column Krater (MMA 50.11.4) <i>Patricia A. Butz</i> . . . . .	277
Reflections on Marble, Copies and Paint <i>Agneta Freccero</i> . . . . .	291

## **Production and Trade of Marble and Other Stones in the Alpine and Danube Provinces: Regional Resources and Mediterranean Imports**

Roman Stone Monuments from Northern Dobruja (Romania). Petrological Characterisation and Provenance Determination in a Historical Context <i>Cristina-Georgeta Alexandrescu – Albert Baltres</i> . . . . .	307
The Marble Decorations of the Mosaic-floored Building in Tomi/Constanța (Romania). Preliminary Studies <i>Cristina-Georgeta Alexandrescu – Irina Sodoleanu – Walter Prochaska – Vasiliki Anevlavi</i> . . . . .	319
Statuary in the Marble Trade Networks of Roman Thrace. A Case Study of Unfinished and Replicated Products <i>Petya Andreeva – Vasiliki Anevlavi – Walter Prochaska – Sabine Ladstätter (†)</i> . . . . .	329
Marble Trade between the Borders of Roman Macedonia and Thrace. The Case Study of the Funerary Monuments <i>Vasiliki Anevlavi – Petya Andreeva – Walter Prochaska – Sabine Ladstätter (†) – Hristo Popov</i> . . . . .	349
Marble Production in Ratiaria <i>Zdravko Dimitrov</i> . . . . .	369
Marble and Other Stones in Colonia Aelia Mursa (Osijek, Croatia) <i>Bojan Djurić – Slavica Filipović – Katarina Bradić-Milinović – Luka Gale – Sándor Kele – Igor Rižnar</i> . . . . .	377
The Pohorje Marble Quarry Complex of Šmartno/Frajhajn <i>Bojan Djurić – Simona Jarc – Edisa Lozić – Walter Prochaska – Igor Rižnar – Katharina Zanier – Nina Zupančič</i> . . . . .	397
Transport and Logistics of White Marble in Thrace. Assessment of the Accessibility of the Kamilski Dol White Marble Quarries in Antiquity <i>Benjamin Frerix</i> . . . . .	409
Eastern and Local Marbles in Western Cisalpine. The Example of Decorated Sarcophagi <i>M. Elena Gorrini – Mirella T. A. Robino – Francesca Garanzini – Simone G. Lerma – Walter Prochaska</i> . . . . .	423
›Rocky Mountains‹ in Northern Noricum. New Insights into the Intra-regional and Supra-regional Organisation of the Economy of Stones <i>Dominik Hagmann</i> . . . . .	443
Use of Aurisina Limestone in the Territory of Slovenia (Italia, Regio X) <i>Andreja Krašna</i> . . . . .	459
The Marble Provenance of a Group of Sculptures Found in Virunum (Austria). Fruits of Methodological Development and Inter-institutional Cooperation <i>Sabine Ladstätter (†) – Walter Prochaska – Vasiliki Anevlavi – Georg Plattner</i> . . . . .	473

Regio X – Venetia et Histria between the Mediterranean and the Alps. Imported Lithotypes from the Roman Theatre of Vicenza (Veneto, Italy) <i>Beatrice Marchet – Jacopo Bonetto</i> . . . . .	485
A Foreigner in Moesia. A Marble Boxer Head from Novae <i>Kalina Petkova</i> . . . . .	499
The Early Christian Complex Kamenica (Vinkovci, Croatia). An Island of Stone in the Sea of Clay <i>Hrvoje Vulić – Bojan Djurić – Simona Jarc – Walter Prochaska – Igor Rižnar – Aleš Šoster – Nina Zupančič</i> . . . . .	505
<b>Findings of the Conference</b>	
ASMOSIA XIII. Findings of the Conference <i>Walter Prochaska</i> . . . . .	519



## MARMORA REUSED IN THE CHURCH OF SANTA MARÍA DE LA OLIVA (LEBRIJA, SEVILLE, SPAIN)

### Abstract

In this paper we study ten shafts from the Roman period that were reused in the church of Santa María de la Oliva (Lebrija). In particular, these spolia shed some light on public architectural programmes and on the types of ornamental rocks used in Nabrisa Veneria.

### INTRODUCTION

Lebrija is a municipality with a rich history in the south of the province of Seville (fig. 1). Called Nabrisa in ancient times, it was a coastal town strategically located on a natural elevation (the present-day Cerro del Castillo Hill), which dominated a large territory on the eastern shore of the ancient Lacus Ligustinus. This area was therefore very favourable for the development of navigation and commercial contacts<sup>1</sup>, as Strabo himself indicates<sup>2</sup>, citing Nabrisa as one of those riverside cities. Pliny notes that Nabrisa was situated between the estuaries of the river Baetis and also indicates that the *cognomen* of the city was Veneria<sup>3</sup>. This has led some scholars to propose that Nabrisa Veneria was raised to the rank of a colony by Caesar. However, there is no epigraphic or archaeological argument to support this hypothesis, while the aforementioned epithet has been linked to the vernacular cult of the Morning Star, associated in Roman times with Venus Marina, protector of navigation<sup>4</sup>. However, it is most likely that this city received municipal legal status in the Flavian period, as did most of the Hispanic *civitates peregrinae*<sup>5</sup>.

In recent times, especially in the last 20 years, some emergency excavations have been carried out in Lebrija. However, these archaeological works have shed little light on the urban morphology of the Roman city. Unfortunately, much of the information we have about Roman Lebrija comes from decontextualised chance finds, most of which have not been preserved and of which we have only a minimal description. These include tombs, remains of buildings, sculptures, coins, mosaics and some column shafts and capitals<sup>6</sup>. Special mention should be made of three examples of funerary sculptures of lions that were found in the city<sup>7</sup>. Despite all this, we know very little about this city in Baetica, and the scarce epigraphy does not offer much information about public life in this civic community.

The various studies on Nabrisa published to date have overlooked the architectural materials of undoubtedly Roman manufacture that were reused as building materials in the church of Santa María de la Oliva. Specifically, these are a group of ten marble shafts and an Ionic-Italic capital

<sup>1</sup> Caro Bellido 1998; García Vargas – Ferrer Albelda – García Fernández 2008, 262–265; Trapero Fernández 2019.

<sup>2</sup> Strab. 3, 1, 9; 3, 2, 5.

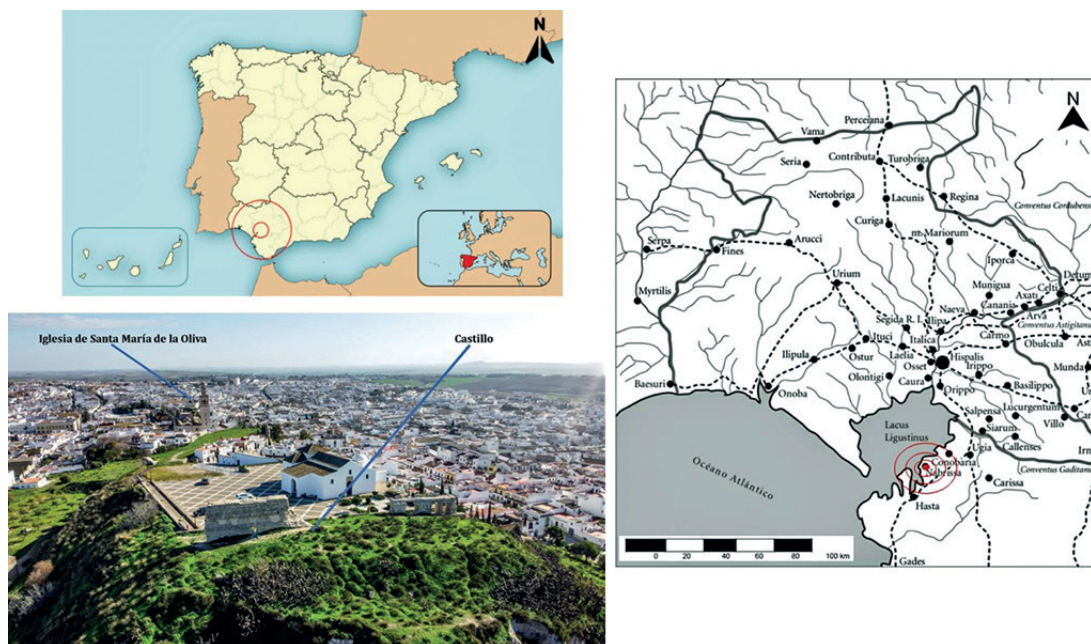
<sup>3</sup> Plin. nat. 3, 3, 11.

<sup>4</sup> Caro Bellido 1986/1987, 66–68.

<sup>5</sup> Caro Bellido 1991, 38 f.

<sup>6</sup> Bellido Ahumada 1985; Tomassetti Guerra 1997; Caro Bellido 1998.

<sup>7</sup> Beltrán Fortes 2000, 438 f.

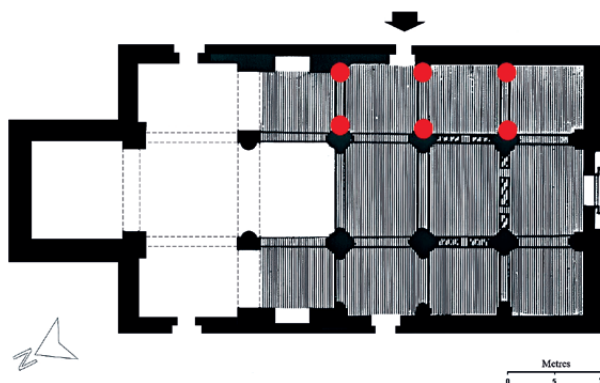


1 Geographical location of Nabrisa, the church of Santa María de la Oliva and the castle hill (Lebrija, Seville) (photo and graphics: D. Romero Vera, D. Becerra Fernández after Creative Commons content)

carved in calcarenite. This chapter will identify the ten marble shafts, but first the monument in which these spolia were reused must be described.

## THE USE OF SPOLIA IN MEDIEVAL CHURCH BUILDING

Santa María de la Oliva is a church in the Mudejar style whose first phase dates from the reign of Alfonso X. Originally, the church had three naves supported by double horseshoe arches which, in turn, rest on columns attached to cruciform pillars<sup>8</sup>. Curiously, Roman shafts were used as supporting elements in the six pillars that delimit the two bays of the nave of the epistle. In the rest of the arcades, bricks or fragments of limestone shafts were used. Although it has been pointed out that the use of Roman materials in medieval buildings has a prestige component and that, likewise, in the time of Alfonso X there was a certain appreciation of antiquity, the fact is that in this case, there is no evidence of symbolic intentionality in their use<sup>9</sup>. The marble shafts are not placed in the most visible area or in the most sacred part of the church (fig. 2).



2 Location of the Roman marble shafts used in the medieval phase of the church of Santa María de la Oliva (graphics: D. Romero Vera, D. Becerra Fernández after Cómez 2005, 40 fig. 2)

<sup>8</sup> Barroso Vázquez 1992; Cómez Ramos 2005.

<sup>9</sup> Cómez Ramos 2012, 81 f.; Amores Carredano 2020, 65–76.



3 Reused Roman material assemblage in the church (photos: D. Romero Vera, D. Becerra Fernández)

The shafts show evidence of blows, possibly caused during their transport, and traces of having been repolished, which led them to lose part of their entasis. It is also striking that several fragments were adapted to obtain a complete shaft. Furthermore, fragments of marble and limestone were fitted together to obtain a complete shaft with the desired height. These operations reveal the effort involved in quarrying, moving and building with materials of different origins and qualities. The search for and extraction of these pieces and, above all, their adaptation to the new construction was necessarily a complex and costly activity<sup>10</sup>.

From the point of view of the use of Roman material, it is noteworthy that only shafts were used, while no bases or capitals of that chronology were reused. In fact, the new capitals are decorated with Christian motifs of Romanesque and Islamic influence. This has led us to believe that they were made in a workshop where Muslim and Christian craftsmen trained in the north of the Iberian Peninsula worked together<sup>11</sup>.

### ANALYSIS OF ROMAN ARCHITECTURAL MATERIALS MADE IN MARMOR

Based on the above observations, we believe that these marble materials (fig. 3) may have belonged to buildings at Nabrisa that were located on or near the site of the medieval temple. It is true that this theory is impossible to prove, but certain evidence supports this hypothesis. First, we find other remains of building materials reused in the 16<sup>th</sup>-century phase of the church, specifically certain fragmented ashlar that retain traces of the use of *ferrei forfices*. It is therefore possible that these were brought to the surface during the opening of the foundations. Furthermore, in 2002, an archaeological excavation was carried out a few metres from the church in which Roman remains were documented at a level relatively close to present ground level

<sup>10</sup> Greenhalgh 2009; Esposito 2012, 63–75; Utrero Agudo 2020, 34–40.

<sup>11</sup> Cómez Ramos 2005, 36–38.



4 Baptismal font formed by a fragment of a Giallo antico shaft supporting an Ionic-Italic capital made of calcaire (photo: D. Romero Vera, D. Becerra Fernández)

(specifically, a street with a brick vaulted sewer and the remains of several *domus*)<sup>12</sup>. However, the archaeological soundings carried out inside the church did not reach pre-foundational levels, so it is not known what the site was used for before the medieval Christian period or whether there were any structures from the Roman period<sup>13</sup>. Finally, there is evidence of the chance discovery of other presumably Roman columns in the vicinity of the church of Santa María de la Oliva<sup>14</sup>.

It is very difficult to imagine the Roman buildings to which these shafts originally belonged because, unfortunately, we do not have bases and, above all, capitals that could provide us with a stylistic analysis. On the basis of their dimensions and raw materials, we can at least venture to attribute these materials to public buildings. We must, nevertheless, be cautious about attributing these pieces to the public realm because there is no general rule and there are many cases of large shafts being used in private buildings. However, marble

shafts larger than 40 cm in diameter tend to belong to public buildings, while those between 30 and 40 cm are considered small and medium-sized and were usually used in peristyles and other domestic environments<sup>15</sup>. In terms of their dimensions, almost all the shafts analysed here are fragments (only one of them – shaft C in figure 3 – seems to be complete, as revealed by the presence of the sumoscape and the remains of the imoscape). However, as is well known, in Roman times the ratio between the diameter of the shaft and its height was 1 : 8<sup>16</sup>. Knowing the diameter of the shaft, we can assume that we would be looking at buildings with a shaft about 10 Roman feet high (with the exception of the two shafts of pink limestone marble from Sintra located on the outside of the temple). There is no doubt that these are polychrome monocylindrical shafts carved in marble of relatively good quality, mainly Marmor Numidicum from Tunisia, fossiliferous limestone from Sintra and, to a lesser extent, in material known as »Rodadero de los Lobos« limestone from the Sierra de Córdoba and marble from Almadén de la Plata<sup>17</sup>. Therefore, although the use of these materials in a religious building would not be unreasonable, we cannot rule out their belonging to other constructions of a public nature.

It seems clear that the shafts do not come from a single building. If we take into account variables such as raw material, typology and dimensions, we can establish as a starting hypothesis that the material reused in the church would come from at least four public buildings in Nabrisa. The most numerous group of shafts deserves special attention; they consist of five monocylindrical pieces carved in the same material, fossiliferous limestone from Sintra, which must have

<sup>12</sup> Quirós 2006, 241–261.

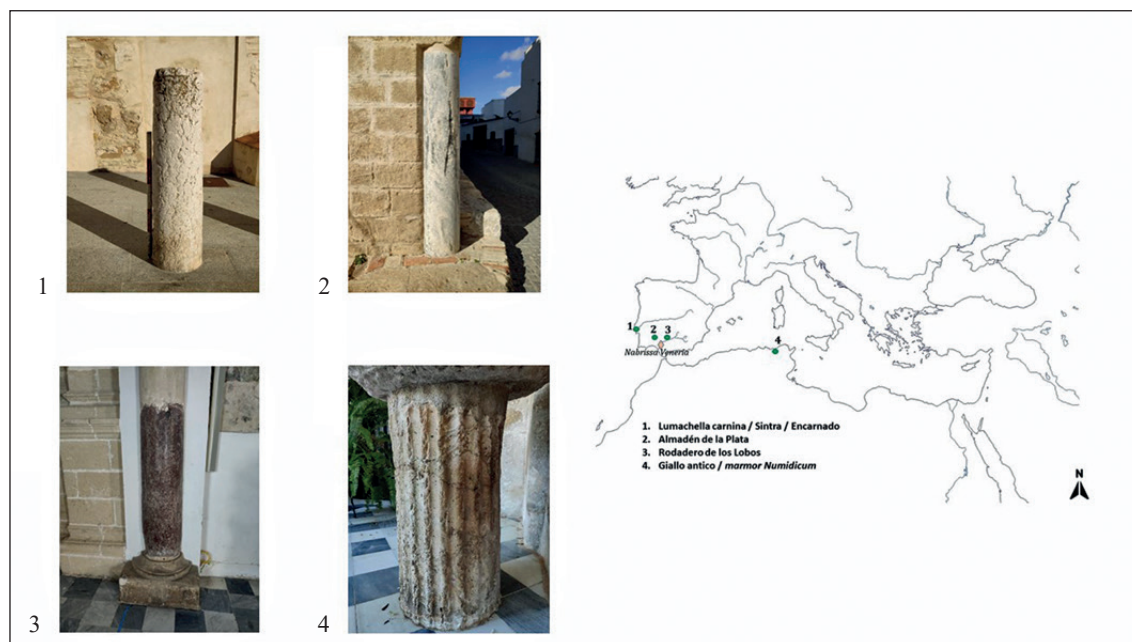
<sup>13</sup> Romero Vera (in press).

<sup>14</sup> Bellido Ahumada 1985, 1–29.

<sup>15</sup> Márquez Moreno 1998, 120 f.

<sup>16</sup> Wilson Jones 1989, 37.

<sup>17</sup> See below.



5 Map showing the areas of extraction of the marmora identified in the church of Santa María de la Oliva (photos and graphics: D. Romero Vera, D. Becerra Fernández)

originally been about 10 Roman feet in height and a foot and a quarter in diameter and which undoubtedly belonged to the same building in Nabrisa.

In the cloister, the «Patio de los Naranjos», we find a baptismal font that reuses Roman materials (fig. 4). It consists of an Ionic-Italic capital made of calcarenite rock and a fragment of a fluted shaft made of Giallo antico, 40 cm in diameter and which can be broadly dated to the High Imperial period, that was used to support the baptismal font. This shaft demonstrates the use in Nabrisa Veneria of one of the most prestigious materials in the *orbis Romanus*.

### TYPES OF MARMORA IDENTIFIED

The macroscopic analysis of the spolia in the church of Santa María de la Oliva in Lebrija identified marble from Almadén de la Plata – without ruling out the possible origin of the anticline of Estremoz – fossiliferous limestone from Sintra, also called Lumachella carnina, Giallo antico and the ornamental rock known as «Rodaderos de los Lobos» (fig. 5, 3). Most of the marble material present in this temple is of Hispanic origin, with the exception of one example of North African marmor. At present, archaeometric techniques are being applied to identify the origin of the marble used in the shaft that, to the naked eye, is made of marble from Almadén de la Plata, together with other white marble found in the current municipality of Lebrija. In the case of the other ornamental rocks studied, the help of archaeometry was not required, as their macroscopic characteristics make them recognisable.

- The marble from Almadén de la Plata (province of Seville) was a highly prized stone in western Baetica at the end of the Augustan principate<sup>18</sup>, partly due to the proximity of the quarries to the navigable river Baetis, an important waterway that contributed decisively to the distribution of this material. It is found not only in a large number of Roman cities

<sup>18</sup> Beltrán Fortes et al. 2018.

in the Guadalquivir Valley<sup>19</sup> and such other cities in Baetica as Baelo Claudia<sup>20</sup>, but also in more distant areas such as Segobriga<sup>21</sup>, the Balearic Islands<sup>22</sup> and North Africa<sup>23</sup>. The macroscopic characteristics of this material can be confused with those of the marble from the Estremoz Anticline, although this material is less frequent in Baetica. For this reason, we intend to carry out an archaeometric study in order to be able to categorically establish its provenance.

- The Giallo antico or Marmor Numidicum comes from Chemtou, Tunisia. It is a very compact, fine-grained, yellow recrystallised limestone with red and brown hues and can be easily identified<sup>24</sup>, although some varieties can be confused with local ornamental rocks such as Santa Tecla stone, more compact and without its characteristic ribbing, or Buixcarrò stone<sup>25</sup>.
- The Lumachella carnina, «lío encarnado» or fossiliferous limestone from Sintra is pinkish, sometimes white or reddish, etc., with pinkish, vinous and sometimes whitish veins. In this ornamental rock we can observe many types of marine fossil remains and it is one of the marmora from Hispania documented in Rome<sup>26</sup>, as revealed by some materials reused in the Basilica of Sant'Agostino<sup>27</sup> and certain columns used in the Villa Adriana. Even so, its use was not very frequent outside the Hispanic area. This limestone comes from Sintra, Portugal, and was extracted from a series of quarries located in the present-day «concelho» of Sintra. It is a material that began to spread throughout the Mediterranean at the beginning of the empire and was frequently used to make columns and floor coverings<sup>28</sup>.
- The limestone known as «Rodaderos de los Lobos» has a purplish hue and was extracted from the area known today as «Cortijo Piquín», in the vicinity of the city of Cordova<sup>29</sup>. It was exploited from the end of the Republican period – together with the «Piedra de Mina» – until the middle of the 3<sup>rd</sup> century AD, and later with Abd-al-Rahman III<sup>30</sup>. It appears constantly in the pavements of Madinat al-Zahra<sup>31</sup>. As a case in point, this stone material was used in Italica in the mouldings of three pedestals, now preserved *in situ* in the gallery of the portico of the theatre with a chronology dating from the Augustan period<sup>32</sup>, as in the case of its use in Colonia Patricia<sup>33</sup>. Thus, the diffusion of this lapidary material is wider than initially thought, in line with other ornamental rocks from the Sierra de Córdoba; for instance, the «Piedra de Mina» documented in different parts of Italica<sup>34</sup> or in a *labrum* from Baelo Claudia which has not yet been published. These quarries and the dispersion of their materials are currently being studied within the framework of the project «Specific Archaeological Activity of Surface Archaeological Prospection of the Roman Quarries Located in the Southern Sector of the Ossa-Moren a Area: Sierra de Córdoba and Sierra Norte de Sevilla, in the Provinces of Cordova and Seville (Expte. 13558)», led by M. L. Loza Azuaga.

<sup>19</sup> Beltrán Fortes et al. 2012.

<sup>20</sup> Álvarez Pérez et al. 2009a; Beltrán Fortes et al. 2018.

<sup>21</sup> Álvarez Pérez et al. 2012.

<sup>22</sup> Álvarez Pérez et al. 2012.

<sup>23</sup> Beltrán Fortes et al. 2012, 269.

<sup>24</sup> Price 2007, 90 f.

<sup>25</sup> Álvarez Pérez et al. 2009b.

<sup>26</sup> Belli 1842, 48.

<sup>27</sup> Gnoli – Marchei – Sironi 2004, 240.

<sup>28</sup> Mañas Romero – Fusco 2008, 513–515.

<sup>29</sup> Ontiveros Ortega et al. 2021.

<sup>30</sup> Ventura Villanueva – Gasparini 2017, 178 fig. 14.

<sup>31</sup> Vallejo Triano 2010, 552.

<sup>32</sup> Rodríguez Gutiérrez 2004, 51 n. 13; Loza Azuaga et al. 2021, 178 f.

<sup>33</sup> Ventura Villanueva 2009.

<sup>34</sup> Becerra Fernández 2019, 690; Ontiveros Ortega et al. 2021, 948 f.

## FINAL REMARKS

According to the current state of knowledge, we can affirm that Roman marble and other elements of architectural decoration were reused in the construction of the Mudejar church of Santa María de la Oliva. This reuse in the medieval period seems to be more practical than symbolic, since the reused marble pieces were not located in the most prominent areas of the church and had a structural function. The Roman materials documented in the interior of the church are of a size that suggests they originally belonged to buildings with a shaft about 10 Roman feet high. Likewise, although this is an unsettled question, we consider that these shafts could have come from at least four public buildings in ancient Nabrisa Veneria. In this sense, the unitary group reused in the right aisle, made up of five shafts of Lumachella carnina, stands out. According to our hypothesis, those former buildings in Nabrisa would have been used as a quarry to obtain building materials for use in the medieval church. These Roman materials also include a calcarenite capital reused as the upper part of a baptismal font, which today appears to be supported by a fragment of a grooved shaft of Giallo antico.

The vast majority of the marmora reused in the church of Santa María de la Oliva in Lebrija are from southern Hispania, with the exception of the Giallo antico from North Africa, which is the only marble material documented from outside the Iberian Peninsula. The presence of this ornamental rock is evidence of the use in Nabrisa of one of the most important and prestigious marmora of the empire. Fossiliferous limestone from Sintra is the most abundant material among the shafts studied.

Finally, this study has served to analyse unpublished archaeological remains that reflect the execution of construction projects of considerable importance in Nabrisa Veneria, in which polychrome marble and white veined marbles were used. This brief study has therefore contributed to shedding some light on the use of marble in a Roman city for which we have little archaeological information.

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## BIBLIOGRAPHY

- |                            |   |
|----------------------------|---|
| Álvarez Pérez et al. 2009a | A. Álvarez Pérez – A. Domènech de la Torre – P. Lapuente Mercadal – A. Pitarch i Martí – H. Royo Plumed, <i>Marbles and Stones of Hispania. Exhibition Catalogue</i> (Tarragona 2009).  |
| Álvarez Pérez et al. 2009b | A. Álvarez Pérez – V. García-Entero – A. Gutiérrez García-Moreno – I. Rodà de Llanza, <i>El marmor de Tarraco. Explotació, utilització i comercialització de la pedra de Santa Tecla en época romana</i> (Tarragona 2009).  |
| Álvarez Pérez et al. 2012  | A. Álvarez Pérez – I. Rodà de Llanza – M. Riera Rullan – A. Gutiérrez García-Moreno – A. Domènech de la Torre – H. Royo Plumed, <i>Provenance of Ancient Marbles from El Plan de ses Figueres</i> (Cabrera, Balearic Islands, Spain), in: <i>ASMOSIA IX</i> , 426–434.  |
| Amores Carredano 2020      | F. Amores Carredano, <i>Los pilares de la Iglesia. Interpretación de fustes romanos como spolia en iglesias hispánicas medievales</i> , in: P. Mateos Cruz – Morán Sánchez (eds.), <i>Exemplum et Spolia. La reutilización arquitectónica en la transformación del paisaje urbano de las ciudades históricas 1</i> (Mérida 2020) 65–76. |
| Barroso Vázquez 1992       | M. D. Barroso Vázquez, <i>Patrimonio histórico artístico de Lebrija</i> (Lebrija 1992).   |
| Becerra Fernández 2019     | D. Becerra Fernández, <i>Los materiales marmóreos del Traianeum de Itálica</i> (PhD Thesis, University of Seville 2019).  |

- Belli 1842 F. Belli, *Catálogo della collezione di pietre usate dagli antichi per costruire ed adornare le loro fabbriche* (Rome 1842).
- Bellido Ahumada 1985 J. Bellido Ahumada, *La patria de Nebrija. Noticia histórica* (Seville 1985).
- Beltrán Fortes 2000 J. Beltrán Fortes, *Leones de piedra romanos de Las Cabezas de San Juan* (Sevilla). A propósito de un nuevo ejemplar identificado, *Spal* 9, 2000, 435–450.
- Beltrán Fortes et al. 2012 J. Beltrán Fortes – O. Rodríguez Gutiérrez – P. López Aldana – E. Ontiveros Ortega – R. Taylor, *Las canteras romanas de mármol de Almadén de la Plata* (Sevilla), in: V. García-Entero (ed.), *El marmora en Hispania. Explotación, uso y difusión en época romana* (Madrid 2012) 253–275.
- Beltrán Fortes et al. 2018 J. Beltrán Fortes – E. Ontiveros Ortega – M. L. Loza Azuaga – O. Rodríguez Gutiérrez – R. Taylor, *Marmora de procedencia hispana en Baelo Claudia* (Bolonia, Tarifa, Cádiz), in: J. Beltrán Fortes – M. L. Loza Azuaga – E. Ontiveros Ortega (eds.), *Marmora Baeticae. Usos de materiales pétreos en la Bética romana, Estudios Arqueológicos y Análisis Arqueométricos* (Seville 2018) 17–38.
- Caro Bellido 1986/1987 A. Caro Bellido, *Nabrisa* (Lebrija, Sevilla). Los orígenes del núcleo urbano, *Anales de la Universidad de Cádiz* 3/4, 1986/1987, 55–70.
- Caro Bellido 1991 A. Caro Bellido, *Lebrija, la ciudad y su entorno I* (Prehistoria y Protohistoria) (Seville 1991).
- Caro Bellido 1998 A. Caro Bellido, *Lebrija y el bajo Guadalquivir. Paleografía y fuentes clásicas grecolatinas* (Lebrija 1998).
- Cómez Ramos 2005 R. Cómez Ramos, *La iglesia de Santa María de la Oliva. Monumento alfonsí*, in: M. González Jiménez (ed.), *I Jornadas de Historia de Lebrija* (Lebrija 2005) 31–40.
- Cómez Ramos 2012 R. Cómez Ramos, *Reutilización de materiales antiguos en la arquitectura mudéjar sevillana*, in: A. Sousa Melo – M. do C. Ribeiro (eds.), *História da Construção. Os materiais* (Braga 2012) 77–88.
- Esposito 2012 D. Esposito, *Pietraie e calcarari a Roma. Recupero dei materiali da costruzione fra medioevo ed età moderna*, in: A. Sousa Melo – M. do C. Ribeiro (eds.), *História da Construção. Os materiais* (Braga 2012) 59–76.
- García Vargas – Ferrer Albelda – García Fernández 2008 E. García Vargas – E. Ferrer Albelda – F. J. García Fernández, *La romanización del bajo Guadalquivir. Ciudad, territorio y economía (siglos II–I A.C.)*, *Mainake* 30, 2008, 247–270.
- Gnoli – Marchei – Sironi 2004 R. Gnoli – M. C. Marchei – A. Sironi, *Repertorio*, in: G. Borghini (ed.), *Marmi Antichi* (Rome 2004) 131–302.
- Greenhalgh 2009 M. Greenhalgh, *Marble Past, Monumental Present. Building with Antiquities in the Mediaeval Mediterranean* (Leiden 2009).
- Loza Azuaga et al. 2021 M. L. Loza Azuaga – D. Becerra Fernández – R. Izquierdo de Montes – E. Ontiveros Ortega – J. Beltrán Fortes, *Marmora de Itálica. Elementos arquitectónicos en la calle La Feria 19* (Santiponce), in: J. Beltrán Fortes – J. L. Escacena Carrasco (eds.), *Itálica. Investigaciones arqueológicas en la Vetus Urbs* (Seville 2021) 171–196.
- Mañas Romero – Fusco 2008 I. Mañas Romero – A. Fusco, *Canteras de Lusitania. Un análisis arqueológico*, in: T. Nogales – J. Beltrán (eds.), *Marmora Hispana. Explotación y uso de los materiales pétreos en la Hispania Romana* (Rome 2008) 483–522.
- Márquez Moreno 1998 C. Márquez Moreno, *La decoración arquitectónica de Colonia Patricia, una aproximación a la arquitectura y urbanismo de la Córdoba romana* (Córdoba 1998).
- Ontiveros Ortega et al. 2021 E. Ontiveros Ortega – J. Beltrán Fortes – A. Monterroso Checa – M. L. Loza Azuaga – M. Gasparini – A. Ventura Villanueva, *Primeros avances en la investigación sobre las canteras de marmora de la sierra de Córdoba, sector Ossa-Morena* (España), *Geotemas* 18, 2021, 947–950.
- Price 2007 M. Price, *Decorative Stone. The Complete Sourcebook* (London 2007).
- Quirós 2006 C. A. Quirós, *Casas y calles de Lebrija. Más de dos mil años de historia a través de la excavación arqueológica de la calle Alcaidía no. 4*, in: J. Abellán Pérez – E. Cortines Torres (eds.), *Homenaje a don José Bellido Ahumada* (Lebrija 2006) 241–261.
- Rodríguez Gutiérrez 2004 O. Rodríguez Gutiérrez, *El teatro romano de Itálica. Estudio Arqueoarquitectónico* (Madrid 2004).

- Romero Vera (in print) D. Romero Vera, Actividad arqueológica puntual en la iglesia de Ntra. Sra. de la Oliva (Lebrija, Sevilla), denominada ›vaciado de criptas 1–2 y calicatas de diagnóstico para soterramiento de red eléctrica‹, Anuario Arqueológico de Andalucía 2017. Actividades de Urgencia Informes y Memorias (in print).
- Tomassetti Guerra 1997 J. M. Tomassetti Guerra, Contribución al estudio del urbanismo antiguo en el Bajo Guadalquivir el caso de Lebrija (Sevilla), Spal 6, 1997, 243–262.
- Trapero Fernández 2019 P. Trapero Fernández, Conectividad en el estuario del Guadalquivir entre Turris Caepionis y Nabrisa Veneria. Aprovechamientos económicos, comunicaciones, embarcaderos y zonas navegables, in: L. Lagóstena (ed.), Economía de los humedales. Prácticas sostenibles y aprovechamientos históricos (Barcelona 2019) 179–194.
- Utrero Agudo 2020 M. G. Utrero Agudo, La arqueología de la producción y la producción de iglesias. Utilizar, reutilizar y reciclar materiales en la tardoantigüedad y el altomedioevo, in: P. Mateos Cruz – C. J. Morán Sánchez (eds.), Exemplum et Spolia. La reutilización arquitectónica en la transformación del paisaje urbano de las ciudades históricas 1 (Mérida 2020) 33–51.
- Vallejo Triano 2010 A. Vallejo Triano, Madinat Al-Zahra. La construcción de una ciudad califal, in: B. Arízaga – J. A. Solórzano (eds.), Construir la ciudad en la Edad Media (Logroño 2010) 547–569.
- Ventura Villanueva 2009 A. Ventura Villanueva, Las élites de Colonia Patricia, año 5 a. C. Un ejemplo de puesta en escena literaria y monumental, in: Espacios usos y formas de la epigrafía hispana en épocas antigua y tardoantigua. Homenaje al Dr. Armin Stylow (Mérida 2009) 375–395.
- Ventura Villanueva – Gasparini 2017 A. Ventura Villanueva – M. Gasparini, El territorio y las actividades económicas, in: J. F. Rodríguez-Neila (ed.), La ciudad y sus legados históricos. Córdoba romana (Córdoba 2017) 153–206.
- Wilson Jones 1989 M. Wilson Jones, Designing the Roman Corinthian Order, JRA 2, 1989, 35–69.

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## ASMOSIA PROCEEDINGS I–XIII

- ASMOSIA I N. Herz – M. Waelkens (eds.), *Classical Marble. Geochemistry, Technology, Trade. Proceedings of the NATO Advanced Research Workshop on Marble in Ancient Greece and Rome, Geology, Quarries, Commerce, Artifacts, Il Ciocco, Lucca, Italy, May 9–13, 1988* (Dordrecht 1988).
- ASMOSIA II M. Waelkens – N. Herz – L. Moens (eds.), *Ancient Stones. Quarrying, Trade and Provenance. Interdisciplinary Studies on Stones and Stone Technology in Europe and Near East from the Prehistoric to the Early Christian Period, ActaALovMono 4* (Leuven 1992).
- ASMOSIA III Y. Maniatis – N. Herz – Y. Basiakos (eds.), *The Study of Marble and other Stones Used in Antiquity. Asmosia III Athens. Transactions of the 3<sup>rd</sup> International Symposium of the Association for the Study of Marble and Other Stones Used in Antiquity* (London 1995).
- ASMOSIA IV M. Schvoerer (ed.), *Archéomatériaux. Marbres et autres roches. Asmosia IV. Actes de la IV<sup>ème</sup> conférence internationale de l'association pour l'étude des marbres et autres roches utilisés dans le passé, Bordeaux-Talence, 9–13 octobre 1995* (Bordeaux 1999).
- ASMOSIA V J. J. Herrmann, Jr. – N. Herz – R. Newman (eds.), *ASMOSIA 5. Interdisciplinary Studies on Ancient Stone. Proceedings of the Fifth International Conference of the Association for the Study of Marble and Other Stones in Antiquity, Museum of Fine Arts, Boston, 11–15 June 1998* (London 2002).
- ASMOSIA VI L. Lazzarini (ed.), *Interdisciplinary Studies on Ancient Stone. ASMOSIA VI. Proceedings of the Sixth International Conference of the Association for the Study of Marble and Other Stones in Antiquity, Venice, June 15–18, 2000* (Padua 2002).
- ASMOSIA VII Y. Maniatis (ed.), *Actes du VII<sup>e</sup> colloque international de l'ASMOSIA organisé par l'École française d'Athènes, le National Center for Scientific Research »DIMOKRITOS«, la 18<sup>e</sup> éphorie des antiquités préhistoriques et classiques (Kavala) et l'Institute of Geology and Mineral Exploration, Thasos, 15–20 septembre 2003 / Proceedings of the 7<sup>th</sup> International Conference of Association for the Study of Marble and Other Stones in Antiquity organized by the French School of Athens, the National Center for Scientific Research »DIMOKRITOS«, the 18<sup>th</sup> Ephoreia of Prehistoric and Classical Antiquities (Kavala) and the Institute of Geology and Mineral Exploration, Thassos, September 15–20, 2003, BCH Suppl. 51* (Athens 2009).
- ASMOSIA VIII P. Jockey (ed.), *Λευκός λίθος. Marbres et autres roches de la Méditerranée antique. Études interdisciplinaires. Actes du VIII<sup>e</sup> Colloque International de l'Association for the Study of Marble and Other Stones Used in Antiquity (ASMOSIA) / Λευκός λίθος. Interdisciplinary Studies on Mediterranean Ancient Marble and Stones. Proceedings of the VIII<sup>th</sup> International Conference of the Association for the Study of Marble and Other Stones Used in Antiquity (ASMOSIA), Aix-en-Provence, 12–18 juin 2006* (Paris 2009).
- ASMOSIA IX A. Gutiérrez Garcia-Moreno – M. P. Lapuente Mercadal – I. Rodà de Llanza (eds.), *Interdisciplinary Studies on Ancient Stone. Proceedings of the IX Association for the Study of Marbles and Other Stones in Antiquity (ASMOSIA) Conference, Tarragona 2009, Documenta 23* (Tarragona 2012).
- ASMOSIA X P. Pensabene – E. Gasperini (eds.), *Interdisciplinary Studies on Ancient Stone. ASMOSIA X. Proceedings of the Tenth International Conference of ASMOSIA, Association for the Study of Marble & Other Stones in Antiquity, Rome, 21–26 May 2012* (Rome 2015).
- ASMOSIA XI D. Matetić Poljak – K. Marasović (eds.), *ASMOSIA XI. Interdisciplinary Studies on Ancient Stone. Proceedings of the Eleventh International Conference of ASMOSIA, Split, 18–22 May 2015* (Split 2018).
- ASMOSIA XII A. B. Yavuz – B. Yolaçan – M. Bruno (eds.), *ASMOSIA XII. Proceedings of the XII. Asmosia International Conference of 8–14 October 2018, Izmir, Dokuz Eylül University, Desem Halls İzmir-Türkiye* (Izmir 2023).
- ASMOSIA XIII S. Ladstätter (†) – W. Prochaska – V. Anevlavi (eds.), *ASMOSIA XIII. Proceedings of the 13<sup>th</sup> International Conference of the Association for the Study of Marble and Other Stones in Antiquity, Vienna, 19–24 September 2022, SoSchrÖAI 65* (Vienna 2025).