# Reuse of the Marmora from the Late Roman Palatial Building at Carranque (Toledo, Spain) in the Visigothic Necropolis

García-Entero, Virginia; Gutiérrez Garcia-M., Anna; Vidal Álvarez, Sergio

Source / Izvornik: ASMOSIA XI, Interdisciplinary Studies on Ancient Stone, Proceedings of the XI International Conference of ASMOSIA, 2018, 427 - 433

Conference paper / Rad u zborniku

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

https://doi.org/10.31534/XI.asmosia.2015/02.27

Permanent link / Trajna poveznica: https://urn.nsk.hr/urn:nbn:hr:123:188951

Rights / Prava: In copyright/Zaštićeno autorskim pravom.

Download date / Datum preuzimanja: 2025-04-02



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	33
	Alabaster. Quarrying and Trade in the Roman World: Evidence from Pompeii and Herculaneum	33
	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 Banch, Donato Ittanasio ana mater Frochasia	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
Undeted Characterisation of White Saint Réat Markle Discrimination December	
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 John J. Herrmann and Donato Attanasio	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	537

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 Tarraco 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	
	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 Deni 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

## REUSE OF THE MARMORA FROM THE LATE ROMAN PALATIAL BUILDING AT CARRANQUE (TOLEDO, SPAIN) IN THE VISIGOTHIC NECROPOLIS<sup>1</sup>

#### Virginia García-Entero<sup>1</sup>, Anna Gutiérrez Garcia-M.<sup>2</sup> and Sergio Vidal Álvarez<sup>3</sup>

<sup>1</sup> Universidad Nacional de Educación a Distancia (UNED), Madrid, Spain (vgarciaentero@geo.uned.es)
 <sup>2</sup> Institut de Recherche sur les ArchéoMATériaux (IRAMAT) – Centre de Recherche en Physique Appliquée à l'Archéologie (CRP2A), Université de Bordeaux Montaigne, Bordeaux, France (anna.gutierrez@u-bordeaux-montaigne.fr)
 <sup>3</sup> Museo Arqueológico Nacional (MAN), Madrid, Spain (sergio.vidal@cultura.gob.es)

#### Abstract

The archaeological site of Carranque (Toledo, Spain) is one of the most important Hispano-Roman sites in terms of the use of *marmora* during the late Roman Empire. The research carried out since 2004 at this site has shed light on the extent of the use of more than forty types of *marmora* (from the most important Mediterranean and Hispanic quarries) to decorate a prominent palatial building built in the late  $4^{th}$  century AD and which has been the object of recent studies and publications. The work we present now focuses on the reuse of *marmora* from this Late Roman building in the construction of tombs of the necropolis established in Visigothic times ( $6^{th} - 7^{th}$  centuries AD).

Keywords

Carranque, marmor reuse, Visigothic necropolis

#### 1. Introduction

The archaeological site of Carranque is located on the northern part of the current province of Toledo, bordering on the province of Madrid, in La Sagra region. In ancient times, it belonged to the *conventus Carthaginensis* (*Tarraconensis* province) and to the *Carthaginensis* province after Diocletian's administrative reform. The site was discovered by chance in 1983 during agricultural work and has been the object of archaeological excavations since 1986¹. In 2003 the site

was opened to the public as part of the Red de Parques Arqueológicos de la Junta de Comunidades de Castilla-La Mancha (Castilla-La Mancha Archaeological Parks Department). The site was established on a wide fluvial terrace on the left bank of the Guadarrama River and covers an area of *c*. 18 hectares. Several buildings and structures have been found since 1986. Among them, three buildings stand out: the *villa* of *Maternus*, a funerary building (*mausoleum*) and the Late Roman palatial building (Fig. 1). Other, still only partially known, buildings existed over the wide terrace. Among them, it is possible to recognize the *pars fructuaria* of the *villa*. It was related to olive oil and wine production and it has been under investigation in recent years (GARCÍA-ENTERO *et al.* 2012).

The study of the *marmora* of Carranque is one of the key objectives of the current research group, which has been working on it since 2004. The vast volume of material recovered in the Late Roman palatial building,

Guadalajara, 2001). Since 2004, C. Fernández Ochoa (UAM) and V. García-Entero (UNED) are in charge of the scientific direction of this site.

2 This paper is part of the Project "Marmora Hispaniae. The Quarrying, Use and Trade of Espejón Limestone in Roman and Late Antique Hispania" (HAR2013-44971) funded by the Ministerio de Economía y Competitividad of Spain directed by V. García-Entero. It is also part of the Project "Estudio de los materiales arqueológicos procedentes de las excavaciones desarrolladas en el edificio palacial del yacimiento de Carranque (Toledo) durante las campañas de 2009 a 2011" led in 2014 by C. Fernández Ochoa and V. García-Entero, and funded by Dirección General de Cultura de la Consejería de Educación, Cultura y Deportes de la JCCM; the cooperation of A. Gutiérrez Garcia-M. has been possible thanks to the "Lapides et Marmora Hispaniae" project of the LabEx Sciences Archéologiques de Bordeaux programme supported by the ANR (nº ANR-10-LABX-52).

The first stage of the investigation of the site was carried out between 1986 and 2003 under the direction of D. Fernández-Galiano and B. Patón Lorca. Its result was the production of an abundant bibliography, mainly focused on the iconography of mosaics of the so-called *villa* of Materno (for a summary of the works carried out, see *Carranque*. *Centro de Hispania romana*,

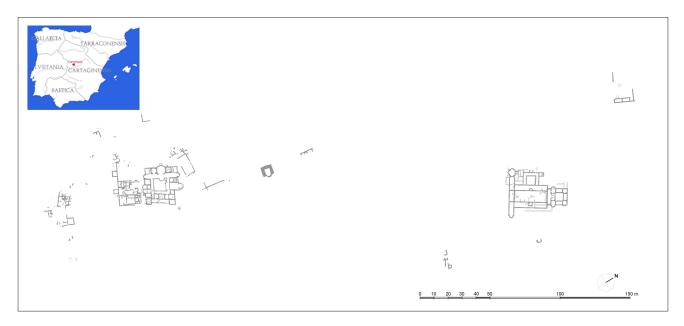


Fig. 1. Plan of the Roman site of Carranque (Toledo, Spain) with location of the site in the Iberian peninsula

several hundreds of thousands of fragments, determines the phases of the study. We have dedicated the first phase to the classification and identification<sup>3</sup> of the more than forty types of *marmora* employed in the decoration program of this important building. This wide array of materials and the presence of some imported types extremely uncommon in Hispania confirms that the archaeological site of Carranque is one of the most important Hispano-Roman sites in terms of the use of *marmora* during the Late Roman Empire (GARCÍA-ENTERO, VIDAL 2007; 2012; GARCÍA-ENTERO *et al.* 2008).

## 2. The Late Roman palatial building and the Visigothic necropolis

The excavation works carried out between 2009 and 2011 focused on the large, Late Roman palatial building. They confirm that this area of the site was occupied over a long span of time, from the construction of the palatial building in the Late Roman period (late 4<sup>th</sup> century AD) to the final destruction of the last standing remains of its walls in the early 20<sup>th</sup> century. Especially noteworthy are the periods of occupation in Visigothic and medieval times (GARCÍA-ENTERO *et al.* 2014). The palace is located on the enclave's lower terrace, a few meters away

from the Guadarrama River. From an architectonic point of view, the building consists of a northern section of centralized plan, with eight smaller spaces arranged around a central space of bigger dimensions (Fig. 2). Two of these minor rooms are closed with exedras. A double-apsed vestibule precedes the entire section, leading to a big open patio. Two porticoed corridors flank the patio to east and west. These corridors are cut off in their central area by the presence of an apsed space –to the west– and a quadrangular space –to the east. On the southern flank, the building closes by means of a long section running perpendicular to the patio, closed on the eastern end by an exedra, and on the western end by a four-lobed building. Finally, there is a group of rooms arranged around a U-shaped corridor next to the western flank of the West portico.

This building is undoubtedly the most sumptuous among those documented in Carranque in terms of quantity and variety of the marmora used in its decoration program (pavement and revetment slabs and opera sectilia, architectural molding elements, pilaster and column shafts, capitals, furniture, etc.). Thus, the use of porfido rosso, porfido nero, porfido verde egiziano, granito verde della sedia di San Lorenzo, granito bianco e nero, granito rosso from Asuán, granito verde a erbetta, serpentino, porfido vitelli, breccia verde di Sparta, rosso antico, cipollino rosso Taenarium, bigio morato/nero antico, verde antico, cipollino, fior di pesco, breccia di Sciro o di Settebassi, portasanta, marmor Thasium, marmor parium -lapis lychnites-, pavonazzetto, breccia corallina, africano, marmor carium o iassense, rosso brecciato, giallo antico, giallo brecciato, Estremoz marble, Almadén de la Plata marble, Espejón limestone, and other Hispanic marmora has been attested (Fig. 3) (GARCÍA-ENTERO, VIDAL 2007, 2012;

Including detailed macroscopic examination of every single fragment and the archaeometric characterization of a large selection of them. To these, we have applied a multimethod analytical protocol consisting of petrography (optical transmitted light microscopy), cathodoluminescence and mass spectrometry isotopic relations. ÀLVAREZ et al. 2006; 2007; RODÀ et al. 2009; 2010.

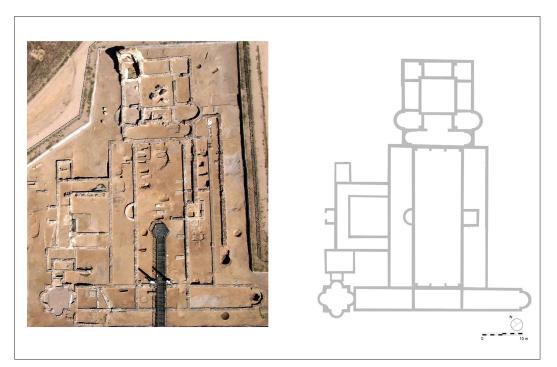


Fig. 2. Aerial view and plan of the Late Roman palatial building of Carranque



Fig. 3. Varieties of *marmora* employed in the Late Roman palatial building decoration program

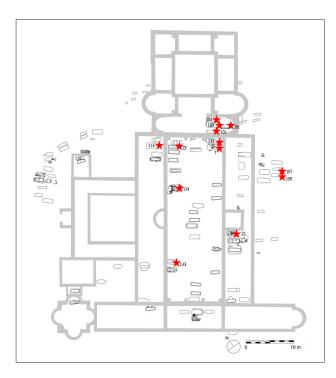


Fig. 4. The Visigothic necropolis sited over the Late Roman palatial building with indication of graves where reused *marmora* is attested

GARCÍA-ENTERO *et al.* 2008). The architectural plan and the decoration program of this important building demonstrates the prominent role that architecture and the massive use of *marmora* played in the self-representation strategies of the Late Roman elite.

In the 6<sup>th</sup>-7<sup>th</sup> centuries AD, a necropolis emerged in the area previously occupied by the palatial building (Fig. 4). This necropolis has at least 110 graves that were excavated between 1988 and 2011 in two different periods of research. The excavation works carried out between 2009 and 2011, and the study of the material unearthed then, which was carried out in 2014, have provided data on the structural features of the tombs, the funeral ritual issues, the use of the necropolis and the anthropological features of the people buried (GARCÍA-ENTERO *et al.* 2017).

#### 3. The reuse of marble

In this paper we focus on the *marmora* from the Late Roman building found in a secondary position (reused) in the funerary structures (cists and lids) as well as within the filling layers deposited when the tombs were closed, in Visigothic times. The excavation works carried out in 2009 and 2011 confirm the regular reuse of marbles to set up tombs. In this period, 41 Visigothic graves were excavated. Thus, the reuse of *marmora* from the palatial building to set up the cists or to function as lids (or part of the lids) has been attested in 6 of them (tombs 7, 25, 101, 102, 114 and 154), while the presence of *marmora* 

fragments within the filling deposits sealing the grave has been corroborated in the case of tombs 7, 23, 101, 103, 104, 107, 108, 131, 133, and 154<sup>4</sup>.

In fact, not only marble crustae, opera sectilia fragments and pavement and revetment slabs, but also fragments of opera sectilia preparatory beds were used again in the tombs, as can be seen in the cist walls of tombs No 25 and 102 (Fig. 7). This demonstrates the significant degree of destruction of the late Roman building during the Visigothic period. The varieties of marmora reused in the Visigothic tombs are the more frequent types employed in the palatial decoration program. Thus, porfido rosso, serpentino, giallo antico/giallo brecciato, pavonazzetto, verde antico, Estremoz marble and Espejón limestone were frequently used. However, other less frequent types (cipollino, marmor iassense, rosso antico, portasanta, breccia di Skyros, breccia corallina and slate) were also used, but their presence is barely testimonial. So far, there has been no evidence of the reuse of the most rarely employed marmora, such as porfido nero, porfido verde egiziano, granito verde della sedia di San Lorenzo, granito bianco e nero, granito rosso from Aswan, granito verde a erbetta, breccia verde di Sparta, bigio morato/nero antico, fior di pesco and africano. In this sense, tomb No. 131 stands out for the large

In tomb No 23 only 1 fragment of pavonazzetto was attested. In tomb No 101 there were documented 3 pieces of giallo antico, 2 of serpentino, 2 of Estremoz marble, and 1 piece of porfido rosso, pavonazzetto and verde antico. In tomb No 102 pieces and fragments of giallo antico (13), slate (12), serpentino (7), pavonazzetto (4), verde antico (2) and local white limestone (2) were attested. In tomb No 103 fragments and complete pieces of serpentino (17), giallo antico and giallo brecciato (15), porfido rosso (8), verde antico (7), pavonazzetto (5), breccia di Skyros (1) and Estremoz marble (1) were documented. In tomb No 104, fragments and pieces of slate (24), giallo antico (21), serpentino (15), porfido rosso (8), pavonazzetto (7), verde antico (5), Espejón limestone (3), Estremoz marble (3) cipollino (2) and iassense (1) were attested. It is especially worth noting the reuse of a fragment of opus sectile composition (slate and white marble) in the cist of this tomb (Fig. 7). In tomb No 107 only 1 fragment of porfido rosso, 1 fragment of serpentino and 1 fragment of pavonazzetto are attested. In tomb No 108 only 2 fragments (pavonazzetto and verde antico) are documented. In tomb No 114 a large fragment of giallo antico revetment slab was reused for the grave's lid. In tomb No 133, 7 fragments and complete pieces of serpentino and 1 fragment of pavonazzetto were attested. In Tomb No 154 fragments and complete pieces of pavonazzetto (6), verde antico (4), giallo antico (4), Espejón limestone (2), Estremoz marble (2), serpentino (1) and white local limestone (1) were documented. For the marbles reused in tombs No 7, 25 and 131 see below.

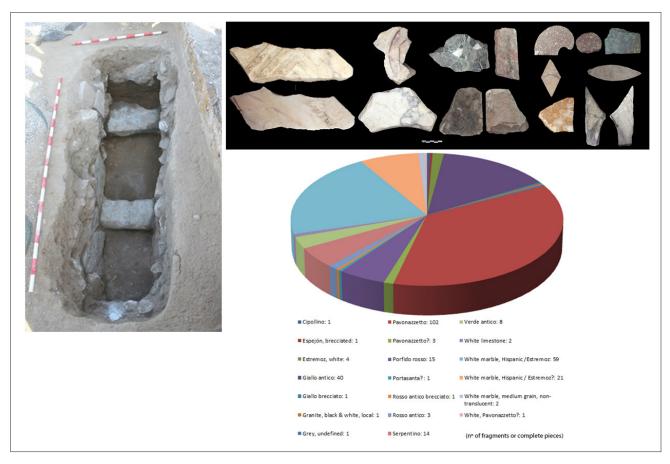


Fig. 5. Tomb nº 131 where 281 *marmora* fragments were reused.

Right: (above) some of the *crustae* and revetment panels from tomb nº 131 and (down) detail of the *marmora* varieties reused

number of marmora fragments (281) reused in it, both as material to build the cist and as part of the refilling deposit to seal the tomb (Fig. 5). This tomb is located in the northeast corner of the courtyard of the palatial building and it contained three corpses: an adult individual (between 25 and 35 years old) in primary position and two other individuals (an adult and a child) in secondary position burial. Once again, pavonazzetto, Estremoz marble, giallo antico, porfido rosso and serpentino are the more frequently found marbles, both as fragments and complete pieces of opera sectilia crustae, pavement slabs and wall revetment panels. Most of them show tool marks (saw, pick and chisel), as well as traces of retouching and re-cutting with a chisel. Nevertheless, these tool marks belong to their first period of use, evidencing the cutting and assembling of these marble pieces in order for them to fit perfectly in their intended place in the Late Roman Palace.

Apart from the reuse of marble as mere building material for the graves, we have also detected the careful selection of certain pieces that were incorporated into the structure of some particular graves in an action that can be considered the symbolic use of *spolia*. This is the case, for example, with tombs n° 7 and 25. Tomb n° 7 is located in the Northeast corner of the central courtyard of the palatial building. It is the grave of a child (c. 12 years old), in which a

big<sup>5</sup> Late Roman (late 4<sup>th</sup> c. AD) sarcophagus marble lid was reused as part of the cover of this tomb, which dates from the 7th c. AD (Fig. 6). The front of the sarcophagus lid is decorated with three scenes taken from the cycle of the prophet Jonah. Archaeometric analysis consisting of POM, CL and IRMS was conducted at the ICAC (Tarragona) and confirmed that the marble used is Estremoz marble (Portugal). We are therefore dealing with a piece made by a Hispanic sculpture workshop of excellent quality that was active in the final decades of the 4th c. AD (FERNÁNDEZ OCHOA et al. 2011; VIDAL, GARCÍA-ENTERO 2015; VIDAL et al. 2016). Although there is no information, it is possible that this magnificent artwork was originally located in the nearby funerary building situated 400 m south of the palace where other sarcophagus fragments were discovered (GARCÍA-ENTE-RO, VIDAL 2012). It must be pointed out that a verde antico slab was also employed as part of this closing cover. Moreover, fragments and complete pieces of pavonazzetto, porfido, serpentino, verde antico, Estremoz marble and slate were also found in the deposit sealing the tomb.

Tomb no 25 is located in the central part of the east corridor of the palace. It is a children's cist tomb (c. 4 years

<sup>5</sup> It is 218 cm long, 24 cm high and 68 cm wide.



Fig. 6. Sarcophagus lid in Estremoz marble with Jonahesque iconography (late  $4^{th}$  century AD) reused in Tomb no 7 ( $7^{th}$  century AD)



Fig. 7. The reuse of *marmora* in Visigothic tombs

Left above: Tomb nº 104: *Opus sectile* fragment reused in the construction of the cist

Left down: Tomb nº 102: *Opus sectile* preparatory bed used for the construction of the tomb Right: Tomb nº 25: *Opus sectile* preparatory bed and *pavonazzetto* pilaster capital reused in the structure of the tomb

old) where an unbroken, *pavonazzetto* pilaster capital was reused (Fig. 7). This marble piece was carefully placed in the bottom of the grave acting as a sort of bed for the corpse, which was then placed on it. The closing cover of this grave was made of several fragments and complete pieces of *crustae* and slabs (Estremoz marble, *breccia corallina* and *marmor isassense*) as well as a fragment of *opera sectilia* preparatory bed as mentioned above.

The study of these materials entailed not only the specific identification and recording of all the pieces of *marmora*, which are currently part of a comprehensive database

of the assemblage, but also the detailed examination of traces of use that could help to recognize the primary use of these fragments (GARCÍA-ENTERO *et al.* 2008). Therefore, the results do not only help to deepen our understanding of the construction processes of the Visigothic cemetery but also to get a more complete image of the volume of *marmora* originally used at the palatial building of Carranque.

#### **BIBLIOGRAPHY**

- ÀLVAREZ A., GUTIÉRREZ GARCÍA-M. A., PITARCH A. 2006: Informe del análisis por microscopía de polarización de 5 muestras procedentes del yacimiento arqueológico de Carranque (Toledo), Institut Català d'Arqueologia Clàssica, Unitat d'Estudis Arqueomètrics, Tarragona (Unpublished Report).
- ÀLVAREZ A., RODÀ I., GUTIÉRREZ GARCIA-M. A., PITARCH A. 2007: Informe del análisis de un conjunto de materiales lapídeos (marmora) procedentes del Parque Arqueológico de Carranque, Toledo, Institut Català d'Arqueologia Clàssica, Unitat d'Estudis Arqueomètrics, Tarragona (Unpublished Report).
- FERNÁNDEZ OCHOA C., BENDALA M., GARCÍA-ENTERO V., VIDAL S. 2011: "Cubierta de sarcófago con el ciclo de Jonás hallada en Carranque (Toledo)", AEspA 84, 231-242.
- GARCÍA-ENTERO V., VIDAL S. 2007: "Marmora from the Roman site of Carranque (Toledo, Spain)", Marmora 3, 53-69.
- GARCÍA-ENTERO V., VIDAL S. 2012: "El uso del *marmor* en el yacimiento de Carranque (Toledo)", in V. GARCÍA-ENTERO (ed.): El *marmor* en Hispania: explotación, uso y difusión en época romana, Madrid, 135-153.
- GARCÍA-ENTERO, V., SALÁN, M., VIDAL, S. 2008: "El *marmor* en el yacimiento de Carranque (Toledo). Algunas consideraciones sobre las marcas de herramientas", in T. NOGALES, J. BELTRAN (eds.): *Marmora Hispana*: explotación y uso de los materiales pétreos en la Hispania Romana, Roma, 199-211.
- GARCÍA-ENTERO V., PEÑA Y., FERNÁNDEZ OCHOA C., ZARCO E. 2012: "La producción de aceite y vino en el interior peninsular. El ejemplo de la villa de Carranque (Toledo"), in J. M. NOGUERA, J. A. ANTOLINOS (eds.): *De vino et oleo Hispaniae*. Áreas de producción y procesos tecnológicos del vino y el aceite en la *Hispania* romana. Coloquio Internacional (Murcia-5-7 de mayo de 2010), Murcia, APA 27-28, 155-172.

- GARCÍA-ENTERO V., FERNÁNDEZ OCHOA C., PEÑA Y., ZARCO E. 2014: "La evolución arquitectónica del edificio palacial de Carranque (Toledo, España). Primeros avances", in P. PENSABENE, C. SFAMENI (a cura di): La villa restaurata e i nuovi studi sull'edilizia residenziale tardoantica, Atti del Convegno Internazionale del CISEM (Piazza Armerina, 7-10 Novembre 2012), Bari, 2014, 477-486.
- GARCÍA-ENTERO V., PEÑA Y., ZARCO E., ELVIRA A., VIDAL S. 2017: "La necrópolis de época visigoda de Santa María de Abajo (Carranque, Toledo", in La Meseta Sur entre la Tardía Antigüedad y la Alta Edad Media, Toledo, 153-212.
- RODÀ I., ÀLVAREZ A., DOMÈNECH A. 2009: Informe de una muestra de mármol procedente de un sarcófago de Carranque (Toledo), Institut Català d'Arqueologia Clàssica. Unitat d'Estudis Arqueomètrics, Tarragona (Unpublished Report).
- RODÀ I., ÀLVAREZ A., DOMÈNECH A. 2010: Informe del análisis de un conjunto de muestras de marmora procedentes de Carranque (Toledo), Institut Català d'Arqueologia Clàssica. Unitat d'Estudis Arqueomètrics, Tarragona (Unpublished Report).
- VIDAL S., GARCÍA-ENTERO V. 2012: "The use of Estremoz marble in Late Antique Sculpture of Hispania: New Data from the Petrographic and Cathodoluminiscence analyses", in ASMOSIA X, 413-420.
- VIDAL S., GARCÍA-ENTERO V., GUTIÉRREZ GAR-CIA-M. A. 2016: "La utilización del mármol de Estremoz en la escultura hispánica de la Antigüedad Tardía: los sarcófagos", digitAR - Revista Digital de Arqueologia, Arquitectura e Artes (XI Congreso Peninsular de Arqueometría, Evora, octubre 2015), nº 3, 119-128.