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THE USE OF ALMADÉN DE LA PLATA MARBLE IN THE PUBLIC PROGRAMS OF COLONIA AUGUSTA FIRMA – ASTIGI (ÉCIJA, SEVILLE, SPAIN)¹

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Abstract

The intensive and ongoing task of study and characterization of the marbles of Almadén de la Plata (Seville) has been undertaken in recent years, shedding light on the Roman exploitation of these quarries and the wide distribution of their products. In parallel, important progress is also being made in the study of the urban configuration of the Augustan colony of Astigi (modern Écija, province of Seville) where recent archaeological excavations have provided a large volume of information regarding its most representative public buildings. Several buildings of the forum have yielded a copious collection of architectural elements and inscriptions, whose morphological, typological and stylistic studies are now joined by petrographic analyses. The latter have enabled the confirmation of the massive use of Almadén de la Plata marble, in its different chromatic varieties, yet in a city which appears to have spared no expense on other stones of foreign origin. The main aim of this contribution is the assessment of the historical significance of this pattern of marble use in the public buildings of the city of Astigi.

Keywords

Astigi forum, Almadén de la Plata marble, monumentalization

Introduction

The quarries and marbles of Almadén de la Plata (Seville) (Fig. 1) have been the object of renewed interest in recent years (Beltrán & Rodríguez 2010, 561-565; Beltrán et al. 2011), and their ongoing study has shed light on their intensive Roman exploitation and the wide distribution of their products, which appears to exceed greatly the local sphere (Beltrán & Rodríguez, 2010: 563), thus confirming these materials as one of the main ornamental stones exploited in the Iberian Peninsula. In parallel, the knowledge of the urban configuration of the Augustan

colony of *Astigi* (modern Écija, province of Seville) has been aided by the large volume of information provided by recent archaeological excavations of its most representative public buildings (Fig. 1) (GARCÍA-DILS 2009; 2012). Several buildings of the *forum* have yielded a copious collection of architectural elements and inscriptions. The morphological, typological and stylistic studies of these materials are now joined by petrographic analyses, which indicate the massive use of Almadén de la Plata marbles. These have been identified in several chromatic varieties, yet in a city which appears not to have withheld from investment in other stones of foreign origin.

The fact that the recent archaeological excavations have been supervised and even promoted by the municipal authorities and their Archaeological Unit has guaranteed, in most cases, the documentation of the precise contexts of the finds. This circumstance is particularly favourable to the study of these materials from the perspective of their functional interpretation, chronological adscription and possible continuation in use or reuse over time.

For this study the greatest number of parameters has been cross-referenced: date, archaeological context, modules and proportions, etc. in order to assess the role of the Almadén de la Plata marbles throughout the main monumentalising phases of the city. Moreover, the study of the ornamental stones of *Astigi*, given the presence of many imported types, confirms the *status* of the city and its integration, by means of the *Singilis* (Genil River) and the Guadalquivir River itself, in the intra- and extra-peninsular commercial circuits, no doubt linked to the commercial network developed for the distribution of the olive oil produced in the surrounding territory.

Archaeological research in colonia Augusta Firma

The archaeological excavations carried out in the Plaza de España of Écija between 1997 and 2007 (Fig. 2)

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^{1.} This research has been developed as part of the projects I+D: "De Epigraphia Astigitana. Instituciones, sociedad y mentalidades en Colonia Augusta Firma (Écija-Sevilla) a la luz de la nueva evidencia epigráfica" (ref. HAR2009-08823) and "Marmora de la Hispania Meridional. Análisis de su explotación, comercio y uso en época romana" (ref. HAR2009-11438), both within the Plan General de Investigación of the Spanish Ministerio de Ciencia e Innovación.

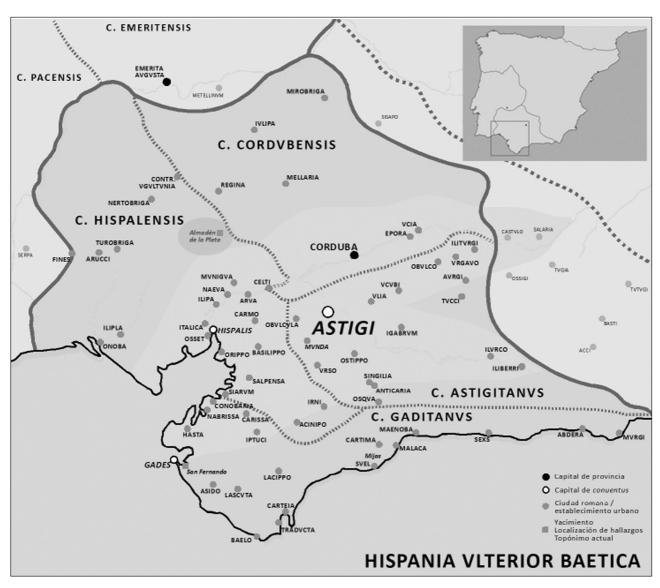


Fig. 1. Location of the city of Astigi and of the quarries of Almadén de la Plata in the context of the Iberian Peninsula and the Roman province of Baetica.

have provided the opportunity to study different processes in the evolution of the urbanism of the city, with particular focus on the domestic and public spaces of the urban centre of the *colonia Augusta Firma* (Fig. 3), founded on the margin of the Genil River by the *Princeps* in the last years of the first century BC². Moreover, and more generally, the numerous rescue excavations carried out over the past years have enabled a significant increase in the knowledge of both the main urban characteristics of the city and of important aspects of the institutional and social life of the colony³, that was also the capital of the homonymous *conuentus*.

In the current state of knowledge of the area of the Plaza de España, it is established that the first urbaniza-

tion of this area took place with the foundation of the city, in Augustan times, with the location in this area of part of the foral spaces as well as a number of houses suitably adapted to the new orthogonal layout (Fig. 4). Specifically, the area excavated in the Plaza de España is crossed from north to south by what is interpreted as the *Kardo Maximus* (Fig. 4a), which divides the studied area into two clearly differentiated zones. The western area corresponds to a group of domestic units forming two *insulae* (Fig. 4b), separated by a *kardo* with portico onto which opened a number of *tabernae*; of the six houses documented in the two *insulae*, two have been studied and published: the "house of the *Hermae*" and the "house of the *oscillum*" ⁴. The italic filiation of these

^{2.} On the foundation of the city and its legal status, see González 1995; Ordóñez 1988.

^{3.} All of the interventions are published in the first volume of the *Carta Arqueológica Municipal*, focused on the urban centre: Sáez *et al.*, 2004; more recently an update has been included in García-Dils & Ordóñez 2006, and García-Dils 2010.

^{4.} Several studies have offered detailed presentations of these houses: García-Dils et al. 2006; 2009; Rodríguez et al. 2008.



Fig. 2. Location and panoramic view of the Plaza de España of Écija.

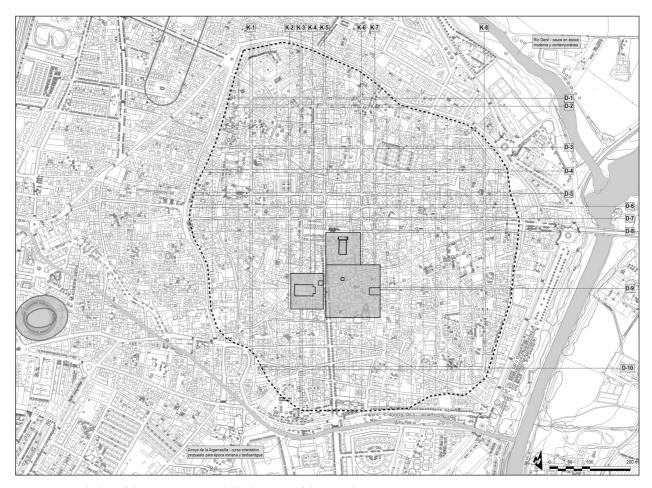


Fig. 3. General plan of the ancient city with the location of the main known spaces.

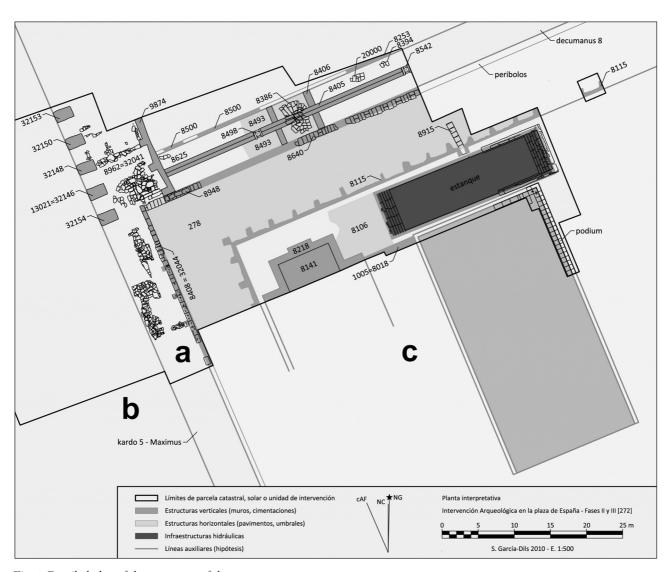


Fig. 4. Detailed plan of the structures of the square.

houses has been established as well as their survival, with successive reforms, until the end of Late Antiquity, at least until the late 7th or early 8th century AD. Therefore, the evolution, modification and enlargement of the neighbouring public spaces never displaced these houses from the neuralgic centre of the city.

The eastern area of the Plaza de España, on the other hand (Fig. 4c), corresponds to a large open space defined by a large wall of *opus quadratum*, that has been identified as the *peribolos* of a *temenos* in the centre of which was located a podium temple dated in Augustan times (GARCÍA-DILS *et al.* 2007), alongside other structures, presumably with a cult function. This temple, of which only a few layers of blocks have so far be identified in its northwestern corner (Fig. 5), opened towards the south onto the rest of the forum, while at the rear of the monument there was a pool in which a significant assemblage of architectural elements, sculptures and epigraphic elements was recovered, all of which are in-

dicators of the luxury of the building and its very likely relationship to the imperial cult (GARCÍA-DILS & OR-DÓÑEZ 2007). Most of the materials considered in this study come from these contexts (Fig. 6). After the construction of the earliest structures of the temenos in Augustan times and throughout the Julian-Claudian period, the first monumentalization took place in Flavian times, when the Kardo Maximus and the decumanus that limit the temenos to the west and north respectively were covered in limestone, while a large wall of ashlars was built around the cult space. From this date the epigraphic evidence offers clear examples of the implication of the ruling elites in the ornamentation of the cult buildings⁵. As we shall see, most of the architectural decoration in marble that has been recovered also dates to this moment.

In the second century, the main entrance to the *temenos*, located to the northwest of the *peribolos*, at the junction of the two main streets, suffered an important

^{5.} Part of the epigraphic evidence is published in Saquete et al. 2011; Carande et al. in press; Ordóñez et al. 2012.



Fig. 5. Temple podium excavated in the Eastern area of the forum.

transformation. The construction of a monumental portico as the entrance to the temple area implied the annulment of the *decumanus*, which was interrupted by the eastern wall of the new portico. It is precisely in this construction, the entrance *porticus* to the area of the podium temple where a privileged Christian funerary area was established in the 5th century AD (GARCÍA-DILS *et al.* 2005; García-Dils *et al.* 2011), the use of which probably continued up until the Arab invasion of the town in 711.

After the Islamic invasion, the whole area of the current square and its immediate surroundings became a large *maqbara*, upon both the earlier public and residential spaces, that would not be abandoned until the Christian conquest in the mid-13th century (ROMO *et al.* 2001).

The assemblage of archaeological materials under analysis (Figs. 7-11)

Over the past years a general study of the urbanism of the *colonia Augusta Firma* has been undertaken, in the form of several specific research lines⁶. Among these, the projects concerned with the creation of an epigraphic corpus⁷ or with the systematization and scientific publication of the results obtained from the archaeological work at the Plaza de España, without doubt one of the most important urban excavations carried out in the recent history of the town (Fig. 2), are particularly noteworthy⁸.

The excavation of the Plaza de España, as we have mentioned, have provided a unique opportunity to char-

acterize the evolution of an important public area of the ancient Roman city, on the basis of a long stratigraphic sequence that spans from the foundation of the colony in the times of Augustus up until the funerary use of the area in the Islamic period (8th century AD). In the course of this excavation, of an area in excess of 7000 square meters, numerous elements belonging to the architectural, sculpture and epigraphic ornamentation of this part of the city were documented. A large part of this material had been reused in Late Antiquity, although in some cases that are particularly important for the formal definition of the buildings, they were found *in situ* within the rubble of the collapsed walls (Fig. 6).

This paper, within a broader study of the stone materials used in the construction and ornamentation of the public architecture of *Astigi*, aims to present an initial assessment of the use of marble from Almadén de la



Fig. 6. Pool located to the rear of the temple in the Eastern area of the forum, during excavation.

 $6. \ The \ Doctoral \ Thesis \ by \ S. \ Garc\'ia-Dils \ (Garc\'ia-Dils \ 2010) \ constitutes \ the \ most \ recent \ overview \ and \ synthesis.$

7. Whilst the creation of a corpus of epigraphy has been underway for decades, in the past three years it has been the focus of the project cited above (*supra* n.1, "*De Epigraphia Astigitana*") under the direction of S. Ordóñez. Among the most recent monographic studies on the epigraphic material, see *supra* note 5, and in this volume the paper on a *uotorum nuncupatio* recovered from the same area of the forum as that studied here (Ordóñez *et al. in this volume*).

8. The excavations took place over more than ten years, since 2001. See Romo *et al.* 2001 and García-Dils 2009 for the synthesis of the results of the different phases, although the final functional interpretation of the buildings –a temple with *temenos* rather than a thermal complex, only became possible as work advanced.

Plata in these building programs. The archaeological characteristics of the materials discussed in this text are summarized in the Table included in this publication.

At present, we can confirm that the marble of Almadén, particularly its white, pink and grey banded varieties⁹, was intensely used in the programs of *Astigi*, in both the architectural decoration and the epigraphic elements associated with public and semipublic messages, forming unitary programs. In these contexts, the marble of Almadén de la Plata in its different qualities and variants appears to be the predominant material.

Among the most significant materials in Almadén marble, there is a series of Konsolengeison type cornices¹⁰ (MECI-56, Fig. 7), others with a simple molding of strigil decoration (MECI-53, Fig. 8) and acanthus leaves (MECI-57, Fig. 8), fragments of freezes with vegetal scroll decoration (EM-21, EM-24 MECI-45 and MECI-47, Fig. 9) also present on the front of a pedestal (MECI-52), as well as revetment slabs for architraves or doorjambs, that are either plain (EM-28, Fig. 8) or decorated with different variants of cymatium: Bügelkymation (MECI-48, Fig. 7), Herzblattkymation (MECI-43, Fig. 10), laurel leaves (MECI-44, Fig. 10). Among the elements sampled there are also Corinthian type pilaster capitels of different modules but similar typology (MECI-41, MECI-42, both on Fig. 10 and MECI-49, Fig. 11) and a fragment of fluted pilaster column (MECI-54, Fig. 8). The sample has also included a number of epigraphic elements, deemed important either architecturally as in the case of an architrave with recesses for litterae aureae (EM-25, Fig. 8) and/or chronologically, as in the case of the pedestal of Aponia Montana (MECI-36, Fig. 10) or Postumius Acilianus (MECI-01/18). We have also included a fragment of a possible clipeus decorated with oak leaves (EM-26, Fig. 11) and finally, the monumental foundation block recovered from the excavation in calle Emilio Castelar 5 (Buzón 2009, 108-111) and identified as the podium of a temple that was partially excavated in calle Galindo no 2 (MECI-59, Fig. 7) (Buzón 2009). Among the most significant stylistic traits of these materials, the use of trepanation is important, becoming central in architectural decoration from Flavian times onwards. However some elements display the characteristics of the recuperation of the traditions of the early Imperial period that took place in the first half of the second century AD, as can be appreciated on some of the cymatium and astragalus.

In the present state of the study of the contexts of these elements, it can be said that most of them, on the basis of their typology, manufacture and find location, would have belonged to the orders of different public spaces in this area of the *Forum*, that was the object of an

important renovation between the late first century AD and the first half of the second century, as is confirmed by the sculpture and epigraphic materials. Again, these chronological adscriptions, whilst taking into account the limitations of the stylistic analysis of the architectural decoration, point towards the golden days of the city, characterized by its economic capacity and the consolidation of new civil behaviours that made possible the important renovation of its urban aspect. The apparent absence of Almadén de la Plata marble in previous monumental programs linked to the origin of the colony is socio-historically significant. The early monumental programs of the city appear to draw on the well-known Late Republican and early Imperial constructive and decorative traditions, with the use of local stones with uniform stucco finishing. The introduction of the local marmora in the early Imperial moments is however known in other centres such as Italica (RODRÍGUEZ 2008a, 254-255; 2008b, 225) or *Ilipa* (RODRÍGUEZ *et al.* 2012).

The use of Almadén de la Plata marbles in *colonia* Augusta Firma

The marble outcrops of Almadén de la Plata (approximately 55 km to the north of Seville and 95 km to the west-northwest of Écija, as the crow flies) (Fig. 1) belong to the southern geological unit of the Ossa Morena Zone known as the Metamorphic Band of Aracena. The Almadén de la Plata Core is located on the eastern tip of this unit. The geology of the area, characterized as a high metamorphism core in contact with a suture area, is complex in terms of structures, tectonics and metamorphic gradients. The protoliths of the marbles were impure carbonates (ÁBALOS et al. 1991), thus the colour and visual aspect of the Almadén marbles are highly variable both within and between areas. Also, the Almadén marbles display variable carbonate compositions: calcitic marbles, calcitic marbles with dolomite and also varieties in which dolomite is the main carbonate (ONTIVEROS 2008; ONTIVEROS et al. 2012). Textures are extremely variable, even on the microscopic scale, from well crystallised granoblastic textures to mylonitic textures. Deformation is usually intense.

At the previous Asmosia meeting, our work-team presented a characterization of the quarry areas of Cerro de los Covachos and Loma de los Castillejos (ON-TIVEROS *et al.* 2012; Rodríguez *et al.*, 2012). Further field work as part of the project *Marmora in southern Hispania* and a PhD dissertation in progress have enabled us to carry out new field work and extensive sampling in other marble outcrops and potential quarries of

^{9.} The lithotypes present in the quarries and their archaeological identification have been detailed in recent works: Ontiveros 2008; Ontiveros et al. 2012.

^{10.} There are cases in which the elements clearly belong to similar series, although, at present, only one has been analyzed.

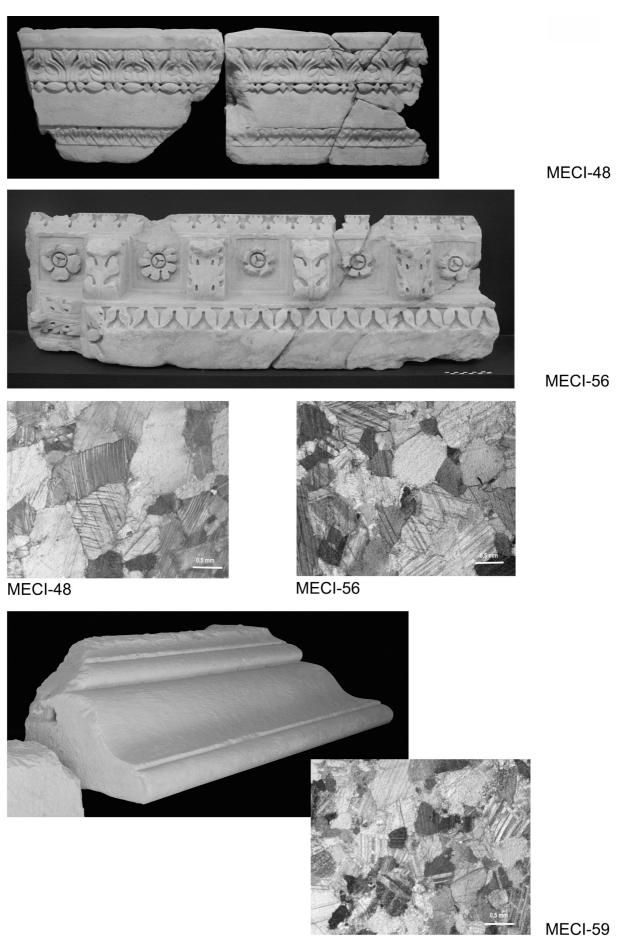


Fig. 7. Material samples: MECI-48, MECI-56 and MECI-59.

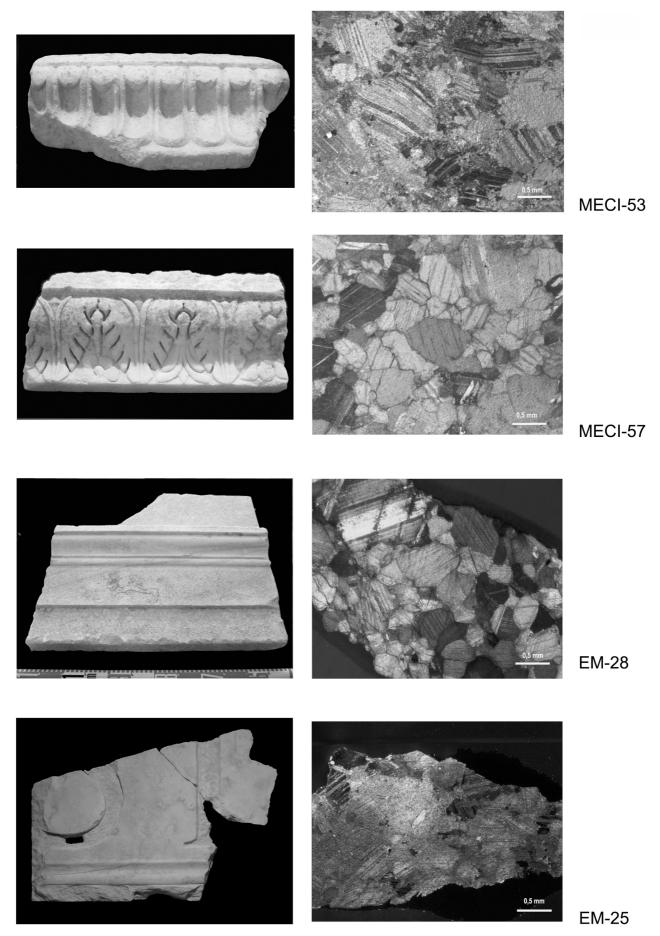


Fig. 8. Material samples: MECI-53, MECI-57, EM28 and MECI-25.

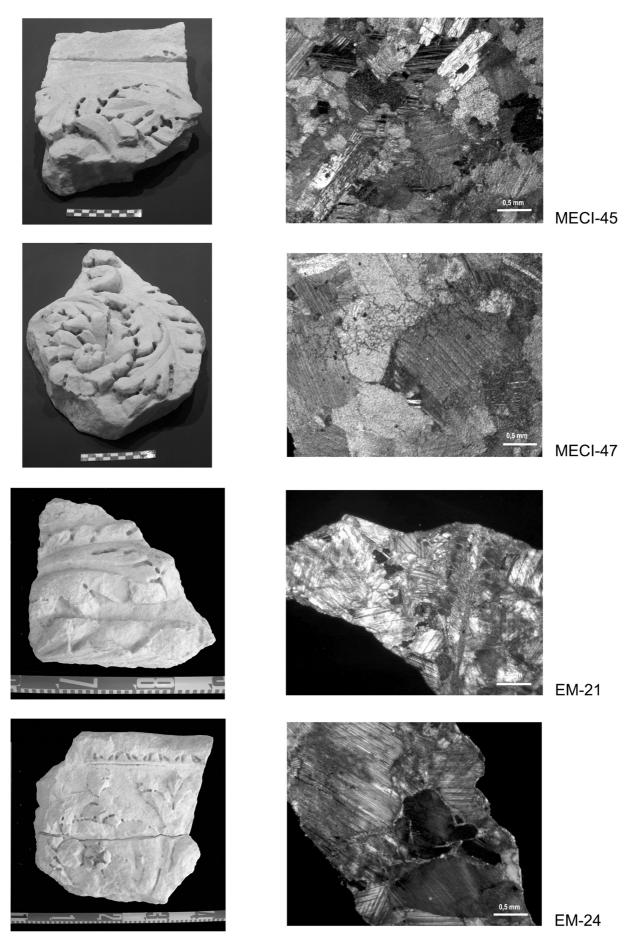


Fig. 9. Material samples: MECI-45, MECI-47, EM-21 and EM-24

the area. Field work has been a priority in the areas where the characteristics of the marbles and the proximity to Roman occupation sites require the assessment of their potential exploitation. Most of these areas, unlike Cerro de los Covachos and Loma de los Castillejos, do not appear to display any large scale evidence of ancient quarrying. However, it is only through the detailed study of their marbles and their comparison with archaeological materials that we shall be able to confirm their exploitation in Antiquity. For this purpose, the reference samples obtained in the field have been submitted to petrographic analysis, XRD and XRF characterization and analysis under the scanning electron microscope for further structural and mineralogical observations¹¹. The ongoing sampling and instrumental analyses, in parallel to a growing body of studied archaeological materials, are allowing us to build an increasingly detailed picture of the use of Almadén marbles in Roman times.

The petrographic and visual comparison of the samples taken from the archaeological elements of Astigi with the reference data for the quarry areas defined during fieldwork in Almadén de la Plata and with other reference materials from southern Spain and Portugal also known as potential sources of marble in Roman times has not only enabled the identification of Almadén de la Plata as the main marble source of the archaeological elements analyzed from Astigi, but has also enabled the identification of some of Almadén's most characteristic chromatic and textural varieties, particularly of the white, pink veined and grey veined varieties of Cerro de los Covachos. The petrographic characterization of the samples (Figs. 7-11) constitutes an important improvement on previous macroscopic assessments, for instance, of the materials of Phase 1 of the excavations included in the site reports (ROMO 2003), some of which were put forward as Almadén marble. However, most of the materials had not been given even a preliminary provenance, and others, such as the capitel MECI-49 (Fig. 11) had been identified as imported materials (ROMO 2003, 314).

The volume of marble from Almadén present in Roman *Astigi* confirms the intensive exploitation of this quarry district and the distribution of its materials in the second half of the first century AD and the whole of the second century. The materials that can be traced to Cerro de los Covachos confirm the known importance of this site at which an ancient quarry face is still preserved (CANTO 1977-78; BELTRÁN *et al.* 2011).

With regard to the identification of marbles from the other areas of the Almadén quarry district sampled as potential sources but lacking archaeological confirmation of their Roman exploitation, the data offered by the Astigi materials is insufficient to formulate many conclusions. The apparent absence in the public buildings of Astigi of marbles from the area of Loma de los Castillejos (ONTIVEROS 2008; ONTIVEROS et al. 2012), where there is large scale evidence of ancient quarry working, is very interesting. As a working hypothesis we may suggest that this absence may be due to the existence of different distribution patterns or different dates of exploitation between the materials from Los Covachos and Los Castillejos, or even to the existence of different types of ownership over the quarries. Indeed, the question of the Imperial control over the quarries of Almadén has been present in the literature for several decades¹², yet has not so far been addressed by means of an updated empirical data set including detailed information on the contexts of use of its marbles. In this sense, the public buildings of Astigi constitute a unique opportunity to compare the provenance of their materials with the nature of their commissioners. It is significant, for example, that Almadén marble was the material used for the inscriptions associated with the emblematic figure of Aponia Montana (MECI-36, Fig. 10) who lived in Astigi in the first third of the second century AD and was one of the most powerful and rich women of Baetica, along with Iunia Rustica in Cartima¹³.

However, alongside the material of the sevillian quarry area, the arrival of which to Astigi was made possible by the river network of the *Baetis-Singilis* (Fig. 1), other marble varieties are present, although in smaller quantities, from both regional and long distance Mediterranean sources. Indeed, the use of other regional marbles such as those of Mijas in the Malaga area, or of Trigaches in Lusitania has been established visually. Foreign coloured marbles include giallo antico, verde antico, africano of Teos, cipollino, red porphyry, serpentino, brecia di Skyro and pavonazzetto. Granites include the granite del Foro and Troad types¹⁴ –apparently quite abundant and present, for example, in the large monolithic columns associated with the buildings of the forum that are now reused for instance in the façade of the church of Santa Bárbara- as well as others from the Iberian Peninsula (WILLIAMS-THORPE & POTTS 2002; Pensabene 2006; Felipe 2008).

^{11.} Carried out in the Laboratorio de Petrología of the Instituto Andaluz del Patrimonio Histórico (Seville) and the Centro de Investigación, Tecnología e Innovación (CITIUS) of the University of Seville.

^{12.} On the suggested identification of the Almadén quarries as Imperial property, see Mayer & Rodá 1998, 232; Rodá 1997, 173-174; Beltrán & Rodríguez 2010, 563-564.

^{13.} On Aponia Montana (CIL II²/5, 1162 and 1166), sacerdos diuarum Augustarum of the colony who made both dedications for a total cost of 250 pounds of silver, Chic 1987-88; Melchor 2009. Iunia Rustica (CIL II 1956), priestess in Cartima, carried out a considerable number of public contributions, uide Le Roux 1999. A new dedication from Astigi by a woman, possibly also of high cost, in Ordóñez et al. in press a. For an overview of the elites of Hispania as expressed through their dedication in silver, Curchin 1983.

^{14.} Felipe 2008, 137 links the massive use of granite in the city to the second moment of monumentalization that the author dates in Hadrian times.

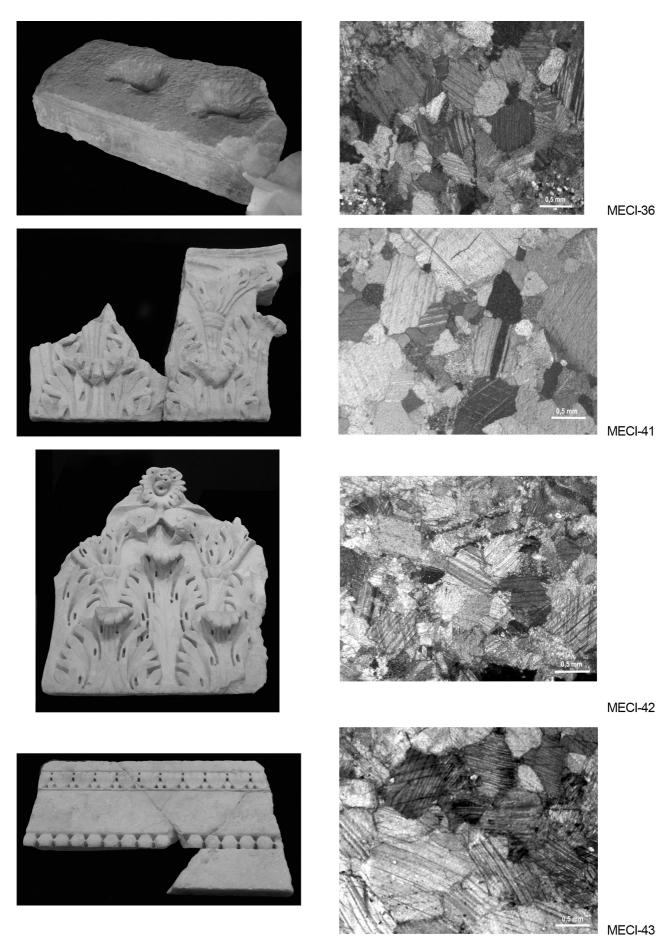


Fig. 10. Material samples: MECI-36, MECI-41, MECI-42 and MECI-43.

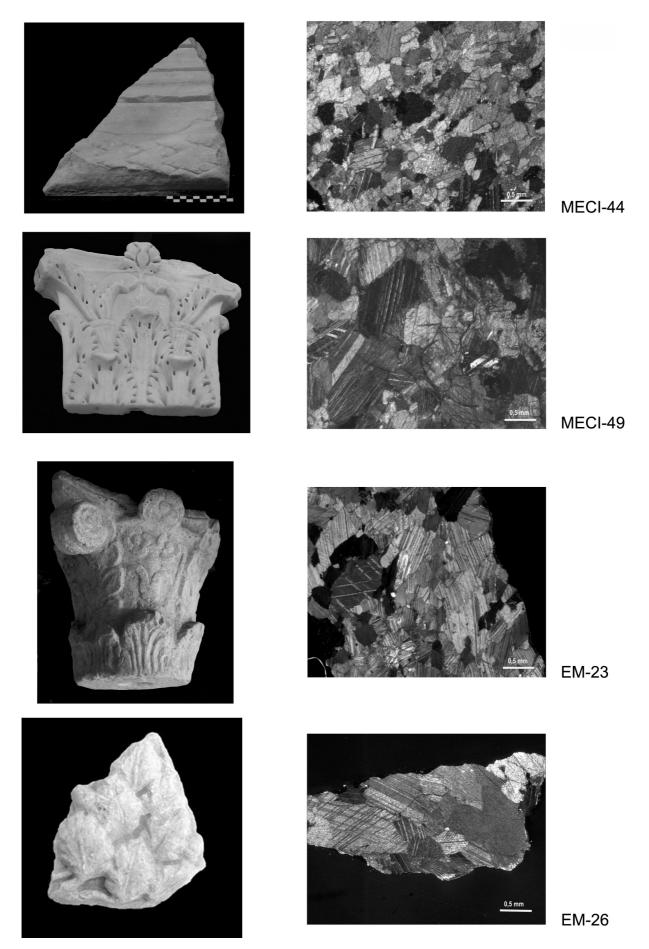


Fig. 11. Material samples: MECI-44, MECI-49, EM-23 and EM-26

In order to provide a detailed assessment of the true socioeconomic and ideological significance of the use of these different materials, and of the investments that they imply, it will be necessary to carefully study the type of pieces and the manufactures associated with each one of these raw materials, as well as their dates of exploitation and use. At present, for example, the main Mediterranean marbles, such as the verde antico, pavonazzetto, breccia di Settebasi or the porphyries appear to be essentially used for revetment, opera sectilia and even small architectural elements, while the marble of Mijas¹⁵, as in other well-known cases in Baetica, Itálica for example (RODRÍGUEZ 2008a; 2008b), appears to share the same circuits and markets as the marble of Almadén, although the greater difficulty in its transport to Astigi may justify its lesser volume here. In the case of the regional materials, it seems possible to suggest the distribution of the material as raw blocks or semi-manufactured pieces, the working of which would be completed by the urban workshops or on the construction sites according to the needs of the particular programs. In contrast, the emblematic Mediterranean marmora such as the white marble of Luni or those of the Greek quarries of Paros and Pentelikon appear to be related to very specific pieces with a high ideological value, which probably arrived to the city in finished form. This is the case of most of the exceptional sculptures recovered from the Plaza de España excavations (Fig. 7), mainly dated in the first half of the second century AD, or the inscription with a votorum nuncupatio dated to the times of the Emperor Commodus (SAQUETE et al. 2011; Ordóñez et al. in press). Most of these singular pieces were recovered from the Late Antique fills of the pool located to the rear of one of the main cult buildings. The exceptionally well-preserved copy of an amazon, Sciarra type (LEÓN 2008) is particularly noteworthy, as are the torso of a possible athlete and the heads of two male figures, one with a Corinthian helmet. The marbles used in this assemblage, dated in the time of Hadrian, are identified in the literature as white Greek marbles from Paros and Pentelikon (León 2005; 2008, 251; Pensabene 2006, 126), thus suggesting their attribution to an Athenian workshop (PENSABENE 2006, 127). The presence of this sculptural program, very probably created in Greece, in the context of the city of Astigi, is of particular ideological and symbolic significance.

Conclusions

The study of the marbles of the public buildings of *Astigi* (Écija, Seville, Spain) has shed light on several significant aspects of their nature, provenance and structured use. The data obtained by means of the archaeological, stylistic, contextual and petrographic analysis

can be used to address questions related both to the quarries of provenance of the materials and to the historical contexts in which they were used.

A first observation is the abundance and absolute predominance of the use of Almadén de la Plata marble in the *colonia Augusta Firma*, thus confirming the intensive Roman working of the Almadén marble district and, particularly, of that of the well-known quarry of Los Covachos from which several characteristic marbles were obtained, namely white, pink veined and grey veined varieties.

Most of the archaeological elements that we identify as products of the quarry district of Almadén appear to date between the later first century AD and second century AD, thus providing an important chronological reference for the quarries themselves and the networks of distribution of their products. These dates coincide with the moment of greatest wealth of the city and those of the peak of the olive oils exports from Astigi (CHIC 1986; CHIC 1988; BERNI 2008; REMESAL 2011). Indeed, the situation of peace and stability that began in Augustan times, and the regulation of the rivers Genil and Guadalquivir in order to ensure their navigability, created the necessary conditions for the large scale exportation of olive oil that would make the fortune of the colonia Augusta Firma. Industrial potteries were established on the banks of both rivers and were active from the early first century AD to the third century AD. Their production provided for the markets of the entire Mediterranean, Rome and the military camps on the frontiers (CHIC 1986; REMESAL 1986, BERNI 1998). The exportation of oil was in the hands of private enterprises, but benefitted greatly from having a guaranteed buyer, the State, who insured the sale of an important part of the production through the annonary system. Based on the evidence from amphorae, it was from Flavian times when the peak of exportation was reached, and even more so under Hadrian when the payments to the Annona became obligatory. These dates correspond to the greatest splendor of the city as is illustrated by the archaeological and epigraphic records that show that the wealth and the level of development of the colony during the second century depended substantially on the commerce of oil. Later on, from the early third century onwards, the collapse of the commercial system and the new conditions brought upon by the competition of African oil led to a new phase, one of the landmarks of which was the abandonment of the Testaccio from 260 onwards, and as a result the loss of importance of Astigi in the State's supply system¹⁶.

The typological diversification of the elements made out of Almadén marble is also significant: from architectural elements belonging to public buildings displaying considerable quality in their manufacture, to abundant revetment slabs, for both walls and floors, thus illustrat-

^{15.} On this material see the synthesis by Beltrán & Loza 2003; or the update by the same authors in Beltrán & Loza 2008.

^{16.} On the regressive situation of the Baetican oil exportation in the mid third century AD and the substantial changes in the organization of the supply system, Remesal 1983; Chic 1986; Bernal 2001; Aguilera 2002.

THE USE OF ALMADÉN DE LA PLATA MARBLE IN THE PUBLIC PROGRAMS

ing the versatile use of the Almadén marbles. Although the focus of this paper has been placed on the assemblage of architectural elements recovered from the excavations of Plaza de España, it is noteworthy that Almadén marble is also used in abundance for epigraphic elements (*vid.* Table) and sculptures. From a more general perspective, the use of local materials for the 'classical' decorative programs would appear to imply the creation, consolidation and maturity of local workshops in *Astigi*, given that the timespan of the public building activity suggests the existence of consolidated local workshops rather than foreign craftsmen.

In contrast to the abundance of marble from Almadén de la Plata, there is relatively little foreign marble from the Mediterranean. This may be due to the essen-

tially private nature of the building projects undertaken, beyond the channels of control of the Mediterranean imperial quarries. Indeed the Imperial marbles do not, at present, appear to be part of the large public architectural programs of *Astigi* (with the exception of some granites). However, it is necessary to continue work on the contexts of use and the location of the different monumental architectural and epigraphic elements. Another aspect of future work will be the characterization of the complete range of stone materials present in the city, in order to bring greater precision to two main aspects: first, the percentage of local versus imported material in the different phases and programs; second, the selection criteria established in function of the public or private nature of the commissions.

Table: Summary of the materials under study¹⁷

SIGLA 18	Inventory N°	Basic Identification	Archaeological Context	Dimensions 19	Raw material. Macroscopic characteristics	Photo Ref.
MECI-01/18	EPE.04 3156 n° I y II (1) + EPE.04 3043 (18)	Slab of Postumius Acilianus		N° I: (10-17) x (41,5) x 2,2-2,4 N° II: (15) x (20) x 1,8	Fine grained white marble	-
MECI-36	_	Pedestal of the statue of Aponia Montana		24 x 105 x 55	White marble with fine red-pink veins	FIG. 10
MECI-41	PES.01/19 12(9, 7 o 3)30 n°589 + 8041 N°388	Canonic Corinthian pilaster capitel	UE 8041 4 th century context	50 x 58 x 11	Medium grained white marble with slight light grey stains	FIG. 10
MECI-42	PES.01/19 1335 n°225	Canonic Corinthian pilaster capitel	UE 1335	52,6 x (43,5) x 3,2	Cream coloured, uni- form, medium-fine grained marble	FIG. 10
MECI-43	PES.01/19 8041 n°220/1-4	Architrave with astragalus decoration and <i>Herzblattky-mation</i>	UE 8041 4 th century context	21 x 38 x 4,4	Medium grained white marble	FIG. 10
MECI-44	PES.01/19 FIG. 10	Decorated plaque with a garland of laurel leaves	UE 1087	-	Medium-fine grained White marble	FIG. 11
MECI-45	PES.01/19 8041 n°213	Frieze fragment decorated with acanthus-like scrolls	UE 8041 4th century context	-		FIG. 9
MECI-47	PES 01/19 8062 n°310	Frieze fragment decorated with acanthus-like scrolls	UE 8062	-		FIG. 9
MECI-48	PES.01/19 8041 n°214	Architrave plaque decorated with Bügelkymation and Scherenkymation	Several units: 8034, 8041 y 8072 y 1336	29,2 x 42,3+43,5 x 8,2	Cream coloured, uni- form, medium-fine grained marble	FIG. 7
MECI-49	PES.01/19 8061 n°247	Canonic Corinthian pilaster capitel	UE 8061	32 x 37 x 4,5	Cream coloured, uniform, medium-fine grained marble	FIG. 11
MECI-52	PES.01/19 8041 INF n° 375	Pedestal with a molding of scroll decoration	UE 8041 INF 4 th century context	65 x 37 x 20,5	White marble with fine red-pink veins	-

(continua)

^{17.} Given the limited space in the present publication, it is not possible to include here a detailed catalogue of the elements analyzed as part of this study, including their stylistic descriptions and respective parallels, all of this data will be presented in a future monographic study.

^{18.} The inventory number was assigned by the Laboratorio de Petrología of the IAPH. All the materials were recovered from the Plaza de España excavations and its surroundings and are currently held by the Museo Histórico Municipal de Écija (MHME).

^{19.} Dimensions in cm, high x width x depth. In brackets incomplete measurements.

Table: (segue)

SIGLA 17	Inventory N°	Basic Identification	Archaeological Context	Dimensions 18	Raw material. Macroscopic characteristics	Photo Ref.
MECI-53	PES.01/19 12.563-474	Cornice with strigil decoration		16,3 X 48 X 20,6		FIG. 8
MECI-54	PES.97/28 A1 68	Fluted pilaster column		61,3 x 50,6 x 3,3		_
MECI-56	PES.01/19 8033-1	Complex cornice with Kon- solengeison decoration	UE 8033, 5 th century context	18 x 90 x 32	White-grey medium- fine grained marble	FIG. 7
MECI-57	-	Cornice with acanthus-like leaves		11,7 x 41 x 16,8		FIG. 8
MECI-59	IAP C/Cervantes	Molded foundation block of large dimensions			_	FIG. 7
EM-21	EPE04_2522	Fragment of a friese with acanthus-like scroll	UE 35010	_		FIG. 9
EM-23	-	Corinthian capitel		27 (h) X 19,7 (lower diameter)	Medium-fine grained white marble	FIG. 11
EM-24	EPE04_2538	Frieze fragment with acanthus-like scroll decoration	UE 35010	_		FIG. 9
EM-25	EPE04-3358	Fragment of a plaque with recesses for large metal letters (<i>litterae aureae</i>)	UE 35010	(37) x (54) x 3,5	Medium grained off- white marble	FIG. 8
EM-26	EPE04 - 2115	Fragment of a possible clipeus	UE 30101, Peristyle area of the SW domus. Coin find AE2 378-383. 5th-6th century rubble after phase IV abandon of the house	(17,5) x (15,5) x 5,1	Medium-coarse grained off-white marble	FIG. 11
EM-28	FIG. 11	Fragment of an architrave plaque with a plain molding	UE 35010	54 (width)	Medium grained white marble with a slight grey band.	FIG. 8

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