

The Mosaics with Geometric Patterns from the West and the East of the Roman Empire: The Hourglass Pattern and the Significance of the “*Le Décor Géométrique de la Mosaïque Romaine I-II*”

Roma İmparatorluğu’nun Batısı ve Doğusu’ndan Geometrik Desenli Mozaikler: Kum Saati Motifi ve “*Le Décor Géométrique de la Mosaïque Romaine I-II*” kitabının önemi

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Abstract

The structures of a domus with two mosaics were discovered, and due to its features, it was decided to keep it integrated in the crypt of the Museum building in Bracara Augusta (Portugal). One of the mosaic floors consists on a chessboard pattern, with contrasting colours and the other is furnished with hourglass gridlines. A study of the hourglass motif integrated into different compositions will be presented here, helping to the international standardization of the description of the Roman Mosaic and trying to confront the same pattern from the West (Portugal) to the East (Turkey) of the Roman World.

Keywords: *Bracara Augusta; roman mosaics; corpus; geometric patterns; hourglass.*

Özet

İki mozaik döşemeye sahip bir ev keşfedildi ve özellikleri nedeniyle, Bracara Augusta’da (Portekiz) müze binasının bodrumunda tutulmaya karar verildi. Mozaik zeminlerden biri, zıt renkli dama tahtası deseninden oluşurken, diğeri kum saati motifinden meydana gelmiştir. Bu makalede farklı kompozisyonlara uygulanan kum saati motifi, Roma mozaik uluslararası tanımlama standardizasyonu yardımıyla ve Roma dünyasının batısından (Portekiz) doğusuna (Türkiye) aynı desen ile karşılaştırılarak sunulacaktır.

Anahtar Kelimeler: *Bracara Augusta, Roma mozaikleri, korpus, geometrik desenler, kum saati.*

In the seventies, the creation of the Archaeological Field in Braga (*Bracara Augusta*) enabled the implementation of dozens of archaeological interventions, which allowed understanding the evolution of this Roman City and provided for its preservation. Within this scope, the deployment area for the new building of the Regional Museum of Archaeology D. Diogo de Sousa (MDDS) was the setting for an excavation, between 1990 and 1991. By then, the structures of a *domus* with two mosaics had been discovered, and due to its features, it was decided to keep it integrated in the crypt of the Museum building. One of the mosaic floors consists of a chessboard, with contrasting colours and the other is furnished with hourglass gridlines. The objective of this presentation is to introduce a study of this hourglass motif integrated into different compositions, helping to the international standardization of the description of the Roman Mosaic and trying to confront the same pattern in different parts of the Roman World, from the West to the East.

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Figure 1
Hispania. *Bracara Augusta* (Braga).
(Martins *et al.* 2012: 6)

I - The mosaics of a *domus* in *Bracara Augusta*, *Gallaecia*

1. In order to prepare this text, we began by examining the study of the Mosaics integrated in one of the rooms of the *domus* discovered, between 1990 and 1991, during the excavations for the building of the new Archaeology Museum in the city of Braga, ancient *Bracara Augusta*.

Bracara Augusta was initially integrated in the province of *Lusitania* and later in *Citerior*. During the Augustus ruling period, the Northwest of Hispania was divided into *Conventus*, which had three capitals seen as urban creations of Augustus: *Bracara Augusta*, *Lucus Augusti* (Lugo) and *Asturica Augusta* (Astorga) (Fig. 1).

2. The Mosaics of the Crypt situated in the Archaeology Museum D. Diogo de Sousa (MDDS)

The archaeological record for the period of Augustus shows a particular concentration of traces in the “Alto da Cidade” hill, the highest part of the Roman city, where the most ancient Roman materials were found, including the structures of a *domus*, with two mosaics. It was decided to keep these structures integrated in the crypt of the Museum building (Silva 1994: 61-67). One of the mosaics consists on a chessboard pattern, with contrasting colours and the other is furnished with hourglass gridlines (Abraços 2005: 163-164) (Fig. 2).

We will present a study of this decorative motif (the hourglass) integrated into different compositions showing its distribution in the Roman World and, as it has been described by different authors and different schools, helping to the international standardization of the description of the Roman Mosaic.

2.1. Description of Mosaic 1

The Mosaic is decorated with a chessboard motif, which is a variant of the scheme (Décor I, 115a) the squares of the chessboard motif feature a cross in the centre, in contrasting colour (Fig. 3).

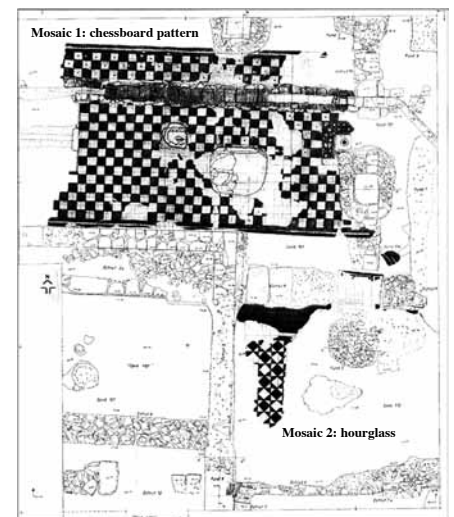


Figure 2
Domus foundations and the Mosaics design.
The Mosaics are decorated with geometric patterns, filled with ornate granite *tesserae* alternating with limestone *tesserae*. Here the granite *tesserae* are represented in black. The blank spaces were filled with white limestone *tesserae*. Mosaic 1: (3 x 7 m); Mosaic 2: (2,23 x 3,22 m). About the illustration *vide* (Abraços 2008: 73; 2011: 835). Archive MDDS.



Figure 3
Mosaic 1
(photo: Abraços 2014)

Here the granite tesserae squares are alternating with squares of white limestone tesserae. The square of limestone presented, in the centre, a crosshead with four granite tesserae and the squares formed by granite tesserae present the same motif, also in the centre, but in negative, because the limestone tesserae are missing. This panel presents in the northeast corner a drain mouth with a frame decorated with the same pattern of the mosaic 2, hourglass gridlines, but of smaller size (Abraços 2011: 829-830).

2.2. Description of Mosaic 2 and the water mouth frame of Mosaic 1:

The Mosaic is decorated with hourglass gridlines. The hourglasses are presented in positive, with granite *tesserae*, alternating with hourglasses, in negative, that would be filled with limestone *tesserae* (Fig. 4 - 5). This is a variant of the scheme (Décor I 138e, hourglass¹ gridlines).

The hourglass gridlines figures are among the oldest motifs of Roman Mosaics. In Lusitania, this motif appears in Conímbriga (Oleiro 1992: 139-140) and in Torre de Palma. In Torre de Palma this motif appears decorating gridlines and squares with tangent hourglasses, located in a corridor between the north portico of the peristyle and the north wing of the *pars urbana* dating from the late 3rd century and the early 4th century A.D. (Lancha 2000: 232-233).

In Hispania, this subject appears in Huesca (Galiano Ruiz 1987: 94-95)², Badalona (Balil 1964: 265-274)³ and Merida (Blanco Freijeiro 1978: números 30; 53)⁴. This motif is represented in Italy in Ostia (Matini, 1967: 57-59)⁵, Stabiae (Pisapia 1989: 57-58)⁶, Pompeii (Blake 1930: 78)⁷, in the province of Padua (Donderen 1986: 144)⁸, also in Aquileia (Donderen 1986: 50)⁹, in Palermo, Sicily (Boeselager 1983: est. LX)¹⁰ and in Olmedo, Sardinia (Angiolillo 1981: 168)¹¹. It is represented in Gaul, Vaison-La-Romaine (Lavagne 2000 III, 3: 609), Aix-en-Provence (Lavagne 2000, III, 3: 857) and Fréjus (Lavagne 2000 III, 3: 973)¹². In North Africa, we see it in Algeria, Cherchel (Lassus: 35 and 50)¹³, Hipona (Marec, 1958: 31)¹⁴ and Timgad (Germain 1969: 76)¹⁵; in Tunisia,

¹ Hourglass: formed by the diagonal of the square, may also be formed of two equal isosceles triangles opposite in the top (coaxial heights) (Viegas *et al.* 1993: 9).

² Fernandez-Galiano Ruiz (1987) *Mosaicos romanos del Convento Cesaraugustano*, Zaragoza: 94-95, n°131, est. XLI.

³ Balil, A (1964) *Mosaicos Romanos de Baetulo (Badalona)*. *Zephyrus* 15. Salamanca: 265-274.

⁴ Blanco Freijeiro (1978) *Mosaicos romanos de Mérida*. *Corpus de Mosaicos Romanos de Espanha*. Fasc. I. Madrid: números 30; 53.

⁵ Morriconi Matini (1967) *Mosaici Antichi in Italia*, Roma: Reg. X Palatium, Roma: 57-59.

⁶ *Mosaici Antichi in Italia* (1989) a cura de Maria Stella Pisapia. Regione Prima. STABIAE. Roma: Istituto Poligrafico e Zeca del Stato: 57-58.

⁷ M. E. Blake (1930) "The pavements of the roman buildings of the Republic and the Early Empire". *Memoirs of the American Accademy in Rome*: 78, pl. 17, 3.

⁸ M. Donderen (1986) *Die Chronologie Der Romischen Mosaiken in Venetien und Istrien Bis Zur Zeit der Antonine*, Gebr. Mann Verlag, Berlin: 144.

⁹ M. Donderen (1986) *Die Chronologie der Romischen mosaiken in Venetien und Istrien Bis Zur Zeit der Antonine*", Berlin: 50, n°78, est. 17.

¹⁰ Boeselager (1983) *Antike Mosaiken in Sizilien*, Giorgio Bretschneider Editore, *Archaeologica* 40, est. LX, fig. 122.

¹¹ S. Angiolillo (1981) *Mosaici Antique in Italia: Sardinia*. Roma: Istituto Poligrafico e Zeca del Stato: 168.

¹² H. Lavagne (2000) *Recueil Général des Mosaïques de la Gaule. X^e Supplément à Gallia. III Province de Narbonnaise. 3. Partie sud-est*. CNRS Éditions: 609; 857; 857.

¹³ J. Lassus (1960) *L'Archeologie Algérienne*, *In Libya*, VIII / 2: 35 e 50, 1960, fig.18.

¹⁴ Erwan Marec (1958) *Monuments Chrétiens d'Hippone, ville épiscopale de Saint-Augustin*, Paris: 31.

¹⁵ S. Germain (1969) *Les Mosaïques de Timgad*, ECNRS, Paris: 76, est. XXXII, n° 92.



Figure 4
Mosaic 2
(photo: Abraços 2004)



Figure 5
Mosaic 2
(Design and photo:
Abraços 2004)

in Thuburbo Majus (Ennaifer 1976: pavement 7, est. CI)¹⁶. It appears also in Turkey, in Ephesus (Jobst 1977: 101)¹⁷ and Zeugma (Önal 2007: 95).¹⁸

Chronology: The hourglasses were used a lot since the 1st century B.C. to the 5th century A.D. However, in this case, no ceramic material was found under the floor. The analysis of the constitution of the house structures belonging to these floors, the size and density of the *tesserae* and thoroughness of the implementation of the mosaics decoration, especially near the drain mouth, leads us to assign the house to a retreated date – High Empire (Abraços 2011: 827-831).

II - The “*Décors*” and its importance in standardizing the description of the Roman Mosaic

1. After Henri Stern, the first to lay the foundations of a scientific Corpus Mosaics of Gaul in the mid-twentieth century and to establish the International Association for the Study of Ancient Mosaics, many authors have worked on the construction of instruments to bring scientific accuracy to the descriptive inventory of mosaics, trying to unify and systematize the vocabulary applied to these forms.

¹⁶ Mongi Ennaifer (1976) *Corpus des Mosaiques de Tunisie*. Vol. I, fasc. 3, pavement 7, est CI.

¹⁷ W. Jobst (1977) *Römische Mosaiken aus Ephesos I. Die Hanghäuser des Embolos*. Verlag Der Österreichischen Akademie Der Wissenschaften Wien: 101, fig. 185 H2/16A.

¹⁸ Mehmet Önal (2007) *A Corpus Zeugma Mosaics*: 95.

Figure 6
Cover of the
“*Le Décor I*”, 1985
(photo: Abraços 2014)



We remember that for the description of a mosaic it is necessary to find description uniformity, which should be able to be used by everyone. It is necessary to find a consensus among researchers. Uniformity must become constant and have a set of rules that will create its own language. This task started with a group of researchers from AIEMA that, in the 80s, sought to find a common language for international standardization of mosaics descriptions, which was achieved with the publication of the work.

Le Décor Géométrique de la Mosaïque Romaine – Répertoire Graphique et Descriptif des Compositions Linéaires et Isotropes, signed by Catherine Balmelle, Michèle Blanchard-Lemée, Jeannine Christophe, Jean-Pierre Darmon, Anne-Marie Guimier-Sorbets, Henri Lavagne et Henri Stern, and illustrated with more than 1600 drawings by Richard Prudhomme. It was published, in 1985, in Paris, by Picard (Fig. 6). This work was the answer to the vote left by experts gathered in the first two AIEMA Symposia: to see published a catalogue of all the geometric shapes constituting the mosaic decoration; to see systematised the descriptive vocabulary applied to these forms, often very complex; to establish the precise correspondences for descriptions in the major scientific languages of this area: German, English, Spanish, French and Italian.

2. The “Dicionário dos motivos geométricos no mosaico romano”

Following this publication, in Portugal, it was published, in 1993, the “Dicionário de Motivos Geométricos no Mosaico Romano” (Fig. 7). The first team of the Corpus of Portugal, under the guidance of the architect Pierre André and Janine Lancha, started the study of the Torre de Palma Mosaics. Three members of this team, Catarina Viegas, Marta Macedo and Fátima Abraços, dedicated themselves to the translation of the lexicon of “*Le Décor Géométrique de la Mosaïque Romaine*” intending to contribute to the international standardization of the description of Roman mosaic. The Dictionary has 230 entries for the most common geometric patterns.

Each entry is translated into the five languages with higher expression in the scientific community (French, Spanish, Italian, English and German). The dictionary contains some entries not listed in the lexicon of the reference work, but this makes it more useful for the study and description of the mosaics in the current Portuguese territory. (Abraços 2006 – 2007: 54).

In Portugal, Bairrão Oleiro, author of the first volume of the *Corpus*, was the first to face the great difficulty of translating into Portuguese the definitions taken from the *Répertoire graphique* or *Décor Géométrique*. He was the pioneer and he encountered many difficulties in choosing the appropriate vocabulary.

But it was thanks to the guidance, the knowledge transmitted through dialogue and the careful reading of the text produced by Bairrão Oleiro and Adília Alarcão, that the team translated the lexicon of the *Décor*.

A work of this kind will always be under construction, because the terms are translated or adapted as they arise. There is a tendency to integrate new terms. Concepts like “tesselato”, “musivário”, “musivo”, are often applied in our publications and are not even listed in the Dictionary of the Portuguese Language. The publication of *Décor* is indeed an important step in the classification of geometric compositions and standardization of vocabulary. However, the difficulties that these authors found are still present, since many of these compositions are not specified in the work register. In these situations, authors adopt the variant term to indicate that it is a similar scheme. (Oliveira 2010: xvi-xvii)

3. The publication of “*Le Décor Géométrique de la Mosaïque Romaine II*”

After seventeen years of the publication of *Décor I*, some of the authors of the previous team published in 2002, with designs by Marie-Pat Raynaud, a supplement to the first edition, now focused on the graphic and descriptive repertoire of decorations: *Le décor géométrique de la mosaïque romaine, II. Répertoire graphique et descriptif des décors centrés*, Paris, Picard., in collaboration with M. Blanchard-Lemée, J.-P. Darmon, S. Gozlan, M.-P Raynaud, translations of K. Goethert (German), D. Parrish (English), G. Ripoll and M. Darder (Spanish), R. Farioli and S. Minguzzi (Italian). (Fig. 8)

This completed the *Décor I*, making it an inventory and description in standard language of all categories of décors. Marie-Pat Raynaud continued the work of Richard Prudhomme, presenting over a thousand drawings. Each of the designs is presented together with a bibliographic reference and relates to an attested mosaic.

Many authors have been working on the construction of scientific instruments for the descriptive accuracy of an inventory of mosaics, trying to unify and systematize the vocabulary applied to these forms.

The creation of the affiliated sections in AIEMA has enabled a constant dialogue and has played an important role in organizing Meetings, which allow the continuation of the studies on Mosaics. All the work done since the sixties by AIEMA in the preparation of the bibliography, critical reviews and their abstracts; commitment to the organization of Conferences, the publication of its minutes, and the role it has had in the development of *Corpora* and works as *Décor*, gave a very important contribution to the standardization of the description of mosaics.

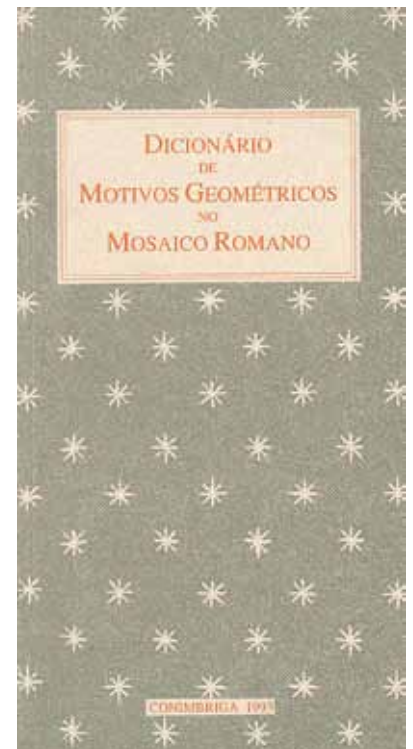


Figure 7
Cover of the “Dicionário de Motivos Geométricos no Mosaico Romano”
(Photo: Abraços 2014)



Figure 8
Cover of the “*Le Décor II*”, 2002
(Photo: Abraços, 2014)

4. Different schools and the uniformity in the description

To describe a mosaic with a geometric pattern it is necessary to have a set of rules or standards to ensure uniformity in the description. Throughout this study, it was found that the first authors who were dedicated to the description of the geometric pattern didn't use standard conditions for its description. About the hourglass motif, the first researcher, that I know, to use this term was S. Angiolillo (Italian school) in the description of Sardinia mosaics, in 1981. This term, become generalized with the publication of the work of Arthur Ovadiah (1980) and later on with the publication of the *Décor I* (1985). Many projects related to mosaics began at this time, in the mid-1980s.

We present, in chronological order, some examples of different descriptions of compositions with hourglasses. Here in the language used by each author.

Erwan Marec, *Monuments Chrétiens d'Hippone, ville épiscopale de Saint-Augustin*, Paris, 1958: 31, describing a mosaic of Hipona: "(...) à Hiponne les cubes des triangles suivent les côtés des carrés, les diagonales sont des lignes dentelées. Ce motif est très ancien puisqu'il figurait déjà à Pompei: cf. Blake, I: 78, pl. 17, 3."; J. Lassus, *L'Archeologie Algérienne, In Libya, VIII / 2: 35 e 50*, 1960, fig. 18, describing a mosaic of Cherchel: "(...) l'intérieur est quadrillé, les carrés étant alternativement occupés par des swastikas ou des triangles noirs et blancs, selon les diagonales."; Morriconi Matini, 1967, *Mosaici Antichi in Italia*, Roma: Reg. X Palatium, Roma: 57-59, describing a mosaic of Ostia: "In una serie di fasce giustapposte di quadrati bianchi e neri, un quadrato nero e uno bianco alternativamente sono scompartiti in quattro triangoli per mezzo di linee diagonali in modo da far risultare coppie di triangoli opposti al vertice campiti rispettivamente di nero su bianco e di bianco su nero."; S. Germain, *Les mosaïques de Timgad*, ECNRS, Paris 1969: 76, est. XXXII, n° 92, describing a mosaic of Timgad: "L'intérieur des carrés est alternativement occupé par un fleuron (...) ou divisé en quatre triangles selon les diagonales"; Dori Levi, 1971, (reimpr. of edition 1947) *Antioch mosaic pavements*. Princeton. Oxford University Press): 25 and est. III c, describing a mosaic of the house of Polyphemus and Galatea in Antioch, Turkey: "The geometric pattern is here the eight-pointed star formed by triangles with their summits opposed, and including a small black square in each white oblique square in the centre of the stars."; Mongi Ennaifer, 1976, *La cité et l'édifice des Asclepieia. Tunis, pavement 7, est CI*, describing a mosaic of Tunisia: "La salle N.E. des thermes d'hiver de Thuburbo Majus, nous offre un tableau des bandes meublées de triangles opposés par le sommet et de croisettes (...)"; W. Jobst, 1977, *Römische Mosaiken aus Ephesos I. Die Hanghäuser des Embolos*. Verlag Der Österreichischen Akademie Der Wissenschaften Wien: 101, fig. 185 H2/16A, describing a mosaic of Ephesos: "Die schwarzen und weißen Quadratfelder werden regelmässig abgelöst von Feldern mit Gleichkeligen Dreiecken."; A. Balil, 1978, "Mosaico de «El Suplicio de Dirce» hallado en Sagunto": 266, describes the mosaic as follows: "El campo del mosaico muestra, en diagonal, una composición de cuadrados sobre cuyo fondo negro se ha inscrito un cuadrado blanco y ocho triángulos del mismo color, puestos por el vértice (...)"; Boeselager, *Antike Mosaiken in Sizilien*, Giorgio Bretschneider Editore, *Archaeologica* 40, 1983, est. LX, fig. 122, describing a mosaic of Palermo: "Im westlichen Teil liegt ein diagonal Angeordneter Rapport, der weisse Quadratfelder im Wechsel mit schwarzen Winkelstücken zeigt, die zwischen sich kleinere weisse Quadrate einschliessen (...)"; Donderen, *Die Chronologie Der Römischen Mosaiken in Venetien und Istrien Bis Zur Zeit der Antonine*, Gebr. Mann Verlag, Berlin 1986: 144, describing a mosaic

of Pádua: “Das aus schwarzen Tessellae gesetzte paviment zieren zwei weibe Rahmenleisten, während das Innenfeld durch quadratische weibe Wurfel doppelter Kantenlänge, die mit Kreuzen alternieren, aufgelockert ist. Letztere setzen sich aus vier weiben Steinchen zusammen.”; M. Donderer, *Die Chronologie der Romischen mosaiken in Venetien und Istrien Bis Zur Zeit der Antonine*, Berlin, 1986: 50, n° 78, est. 17, describing a mosaic of Aquileia: “(...) Das Muster besteht aus abwechselnd schwarzen und weiben Quadraten, in die jeweils diagonal ein kleineres Quadrat der Kontrarfärb gestell ist. (...); Fernandez-Galiano Ruiz, *Mosaicos romanos del Convento Cesaraugustano*, Zaragoza, 1987: 94-95, n° 131, est. XLI, describing a mosaic of Huesca: “(...) el campo consistente en un damero com sobreimposición de cuadrados de punta en negativo (...).”

Even after the publication of *Décor I*, some authors continued the description without using the “hourglass” pattern, but as squares with diagonals.

Table about the use of the term “Hourglass” in the description of Roman mosaic

Date	Author	Mosaic of	Without H.	Hourglass
1958	Marec	Hipona, Argeria	X	
1960	Lassus	Cherchel, Argeria	X	
1967	Matini	Ostia, Italy	X	
1969	Germain	Timgad, Argeria	X	
1976	Ennaifer	Thuburbo, Tunisia	X	
1977	Jobst	Ephesos, Turkey	X	
1978	Balil	Sagunto, Spain	X	
1980	Ovadiah	Geometric and floral patterns		X
1981	Angiolillo	Sardinia, Italy		X
1983	Boeselager	Palermo, Italy	X	
1985	Balmelle	Décor I		X
1985	Thuburbo, Tunisia	Corpus Tunisia		X
1986	Donderen	Pádua, Italy	X	
1987	Galiano-Ruiz	Huesca, Spain	X	
1989	Pisapia	Stabiae, Italy		X
1992	Oleiro	Conímbriga, Portugal		X
2000	Lancha	Torre Palma, Portugal		X
2000	Lavagne	Aix-en-Provence Vaison -la -Romaine Fréjus, France		X
2005	Abraços	Braga, Portugal		X
2007	Önal	Zeugma, Turkey		X

Figure 9
Table about the use of the term “Hourglass”

To describe a mosaic, it is necessary to have a set of rules or standards to ensure uniformity in the description. Throughout this study, with the example of the hourglass pattern, we found that the first authors who were dedicated to the description of the geometric pattern didn’t use standard conditions for their descriptions. The French school has served as a model in the implementation of a corpus of mosaics. Due to its enormous scientific production, since the nineteenth century tradition, it has also served as the standard description for the decorative motifs of mosaics. Now, the publication of the *Décors* enabled an understanding among the authors. This formed a consensus about the standard language to use and researchers can proceed to the description and study of the reciprocal influence of east and west in the roman geometric mosaics of Portugal and Turkey.

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