

# Contribution to the Corpus of Roman Mosaics from the Western Algarve I – The Roman Mosaics of the *Domus* of Boca do Rio (Budens, Algarve)

## Batı Algarve'den Roma Mozaikleri Korpusuna Katkı I – Boca do Rio (Budens, Algarve) *Domusu*'na Ait Roma Mozaikleri

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### Abstract

*From a very early stage on, the attention of archaeologists and the general public was focused on the eastern Algarve and the Roman mosaics found there: richly decorated manor houses, pavements of urban public buildings, statuary and other finds; having been the subject of the Corpus of Roman Mosaics of the Eastern Algarve, pushing the westernmost part of the Algarve - the Western Algarve - into the background for a long time.*

*The aim of this work is to start filling this gap and bring together the Roman mosaics found in the westernmost part of the Algarve, which are less well known but no less significant for understanding the Roman settlement in the Algarve and for defining styles and individualising mosaic workshops in this part of the territory. In this first of a series of articles, we will focus on the mosaics of the roman site of Boca do Rio.*


**Keywords:** Roman mosaics, regional tendencies, mosaic workshop, patterns and style, southwestern Lusitania.

### Öz

*Araştırmaların en erken safhalarından itibaren hem arkeologların hem de geniş kamuoyunun dikkati Doğu Algarve'ye, özellikle burada ortaya çıkarılan Roma mozaiklerine yönelmiştir: Zengin süslemeli konut kompleksleri, kentsel kamusal yapıların döşemeleri, heykeltıraşlık eserleri ve diğer buluntular. Bu ilgi, Doğu Algarve Roma Mozaikleri Korpusu'nda somutlaşmış; böylece Algarve'nin batı kesimi - Batı Algarve - uzun süre gölgede kalmıştır.*

*Bu çalışmanın amacı, bu boşluğu doldurmaya başlayarak Algarve'nin en batı ucunda bulunan Roma mozaiklerini bir araya getirmektir. Bu mozaikler daha az tanınmakla birlikte, bölgedeki Roma yerleşimini anlamak, üslup özelliklerini belirlemek ve mozaik atölyelerini ayırt etmek açısından en az o kadar önemlidir. Bu makaleler dizisinin ilk bölümünde Boca do Rio Roma yerleşmesindeki mozaikler üzerinde durulacaktır.*

**Anahtar Kelimeler:** Roma mozaikleri, bölgesel eğilimler, mozaik atölyesi, desenler ve stil, güneybatı Lusitania.

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## Introduction

Looking at the Roman site of Boca do Rio (Budens, Algarve) (Fig. 1) means, from the start on, flicking through old books with yellowed pages, their contents mostly outdated by more recent research, rummaging through photo albums that have piled up over the years. It also means letting yourself be filled with the admiration and respect that transpire from these brief mentions of finds that the imagination transforms and adapts in analogy to other, better-known sites.

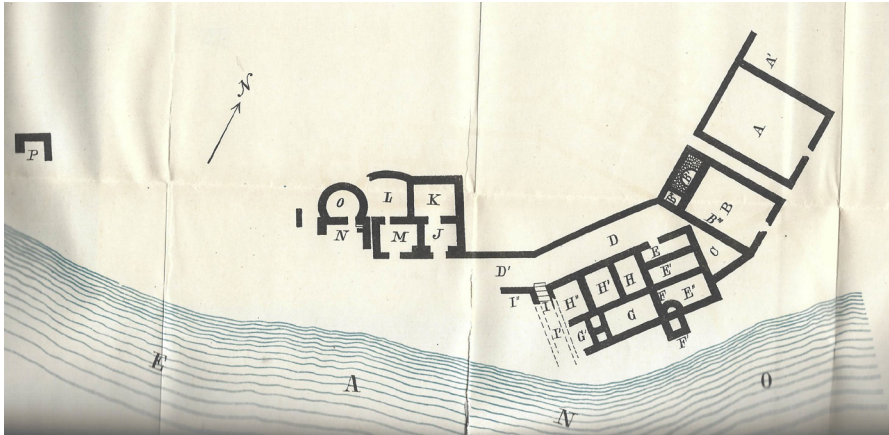


Figure 1  
Plan drawn up by Estácio da Veiga.

The archaeological site of Boca do Rio is no exception. Its existence became known above all in the “Memórias parochiales de 1758”, where Azevedo (Azevedo 1896: 315) gives a brief description of the structures that would be exposed to the action of the sea and winds for over two hundred years:

“On the occasion of the earthquake of the year 1755 near the Fortress of Almadna, when the sea left its course, throwing out the areas of a small beach that was next to a limited opening through which the sea enters, which they call the river of Almadna, the foundations of a large settlement that continued towards the sea were discovered, for in the opening of the waves, loose stones of destroyed buildings could be seen in heaps, which had been submerged by the waters as time went on, and in the small part of the area close to the waves, I discovered and observed many well-crafted stonework stones and the beginnings of buildings that seemed to protect the settlement from the floods and seas at that time; And today everything is again covered with sand as before and it is presumed to have been an ancient city of Buda, from where this parish of Budens took its name, but I haven’t seen any writings about it.”

Since then, the Roman site of Boca do Rio has remained a “sleeping beauty” facing the sea, until a few years ago the sporadic object of conservation and salvage work on existing structures. First understood as “a village”, this Roman site soon came to be known as a “Roman villa with fish salting facilities” (Gorges 1979: 480) due to the layout of the ruins and the mosaic floors documented by Estácio da Veiga (Estácio da Veiga 1910)<sup>1</sup> (Fig. 2): Referring to the architectural model of Roman villae in Portugal, Alarcão even considers that “the villa of Boca do Rio also seems to develop in length, without a peristyle, wide open to the sea” (Alarcão 1988: 115).

<sup>1</sup> In the Catalogue (339), under number 3, Saavedra Machado 1970 refers to Estácio da Veiga’s documentation on Boca do Rio, collected as part of the preparation of the “Charta Archeologica do Algarve”. Under number 2, it also includes “the plan of some tanks at the Areias site in Budens”, which Santos believes may have belonged to the industrial installations at that fishing site (Santos 1971: 80).

Figure 2  
Boca do Rio 2005 ©Duran Kremer.



The latest series of studies has provided more substantiated and detailed information on what may have been one of the largest seafood processing plants in southern Lusitania (Bernardes et al. 2022)<sup>2</sup>.

### Location

The archaeological site of Boca do Rio is located 15 km west of Lagos - the former *Lacobriga* - in the municipality of Vila do Bispo, at the south-western end of the *conventus pacensis*. Its *urban pars* was built directly facing the sea, with structures stretching along the cliffs of Boca do Rio beach, where in ancient times the confluence of the Budens, Vale de Boi and Burgau streams created a navigable estuary. Over the centuries, the silting up of this estuary gave rise to a beach of fine, golden sand: Boca do Rio beach. The most recent surveys carried out on the site have shown that it is precisely to the north of the residential structures that the industrial facilities for processing marine resources to produce garum are concentrated, and that they constitute one of the largest garum producing centres on the Algarve coast (Bernardes et al. 2022: 1412) (Fig. 3).

Figure 3  
Boca do Rio 2001 ©Duran Kremer.



<sup>2</sup> Bernardes et al. 2022 presents complete and detailed information on the multi-year research project for this archaeological site. We would like to thank Dr. João Pedro Bernardes for the promptness with which he provided us with information about his work and allowed us to use his photographs and drawings to illustrate this article.

By Decree 129/77 of 29 September 1977, this archaeological site was classified as a Property of Public Interest. However, its existence is in permanent danger due to the action of the sea, rain and winds.

### The Land and the Sea

From the first visits we made to the Roman ruins of the Boca do Rio site in the 1980s, it was easy to see, year after year (Fig. 4) that the advance of the sea and the high seas which, in some years, were extraordinarily strong, although they uncovered hitherto unseen structures, were destroying them.



Figure 4  
Boca do Rio 2005 ©Duran Kremer.

A chronological analysis of the efforts made to save what could be saved - from Estácio da Veiga and José Formosinho to the present day - would be beyond the scope of this work<sup>3</sup>: we will therefore limit ourselves to the information needed to analyse the mosaics, leaving here only a few photographic moments of the relationship between land and sea at Boca do Rio (Figs. 5-6).

Figure 5  
Boca do Rio 2004 ©Duran Kremer.

Figure 6  
Boca do Rio 2010: Mosaics C+D © J. P. Bernardes.



<sup>3</sup> For all the information on the different actions taken in the past as well as the information obtained in the various excavation campaigns, see: Bernardes et al. 2022: 1408 - 1431.

## The Mosaics

The mosaics of the *pars urbana* of Boca do Rio that still exist are, for the most part, very fragmented: some, which have disappeared, have only reached us through drawings made by Estácio da Veiga's wife - Amélia Claranges Lucotte - her husband's faithful companion on most of his archaeological exploration journeys. The others, preserved, albeit in fragments, in the Lagos Museum, sometimes thanks to the *in extremis* action of Dr José Formosinho<sup>4</sup>, then director of the same museum, allow us to make an informed stylistic and motivational analysis together with the existing drawings, especially when integrated into the set of mosaics in the *conventus pacensis*.

The last mosaic to be lifted from its original bed is now restored and on display at the Vila do Bispo Museum, along with the important finds made during the archaeological mission in 2010 (ERA 2010, Bernardes - Medeiros 2016).

Whenever possible, each mosaic was inventoried, and the corresponding sheets drawn up on the basis of a direct, in-person analysis of each floor. When this is not possible, we have used the published descriptions of the mosaics, as well as the sheets from the Inventory "Mosaics of Portugal", which were kindly copied and provided in 1987 by Carlos Beloto (Beloto 1985).

To make it easier to identify the pavement and its place in the architectural space in which it would have been found, we'll use the numbering followed by C. Beloto in his files, identified as "File FAR. 0--". In the same way, we will use all the information that can be found there and which, whenever possible, will complement the notes in the existing bibliography.

For the motif and stylistic situation of these mosaics, we have used, whenever possible, a comparison with other pavements from Lusitania, Hispania or another region of the Roman Empire. In doing so, however, we won't list all the examples, but only those that seem most relevant to us.

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4 Alves 1989: "With regard to this phenomenon of marine transgression that has so significantly affected the Algarve coastline, it is worth mentioning the circumstances in which Dr José Formosinho, director of the Lagos Museum, in the 1940s, rescued (by boat), in extremis, a large fragment of polychrome mosaic from the so-called 'K room' of Estácio da Veiga's plan, which is now on display in that museum" (Alves 1989: 3).

Mosaic 1 (Beloto 1985, FAR. 016)	
<b>Theme:</b>	unknown
<b>Place and Date of the Find:</b>	Boca do Rio, room B; 1878
<b>Actual Location:</b>	<i>in situ</i>
<b>Architectural Context:</b>	pavement, room
<b>Dimensions:</b>	1,60 x 1,200 m
<b>Chromaticism:</b>	unknown
<b>Laying Technique:</b>	<i>opus tessellatum</i> ; Size of the <i>tesserae</i> : 15 x 15 mm
<b>Material:</b>	limestone
<b>Support:</b>	original
<b>State of Conservation:</b>	the <i>tessellatum</i> no longer exists
<b>Old Restorations:</b>	unknown
<b>Modern restorations:</b>	unknown
<b>Description:</b>	When describing compartment B of its plan, Estácio da Veiga (1910: 212) tells us: “A warehouse that the extinct Algarve fishing company built on famous Roman walls, preserving on the east side a high, hemicyclic-shaped pool, B’, and next to the wall a rectangular lavacra. This upper level is covered in mosaics... the rectangle in which the pool and the lavacra are located is 2.29 metres wide”.
<b>Dating:</b>	The lack of drawings or photographs of the pavement does not allow us to establish a chronology.

Mosaic 2 (Beloto 1985, FAR.017)	
<b>Theme:</b>	unknown
<b>Place and Date of the Find:</b>	Boca do Rio, room B; 1878
<b>Actual Location:</b>	<i>in situ</i>
<b>Architectural Context:</b>	pavement, room
<b>Dimensions:</b>	8,40 x 5,60 m
<b>Chromaticism:</b>	unknown
<b>Laying Technique:</b>	<i>opus tessellatum</i> ; Size of the <i>tesserae</i> : 15 x 15 mm
<b>Material:</b>	limestone
<b>Support:</b>	original
<b>State of Conservation:</b>	the <i>tessellatum</i> no longer exists
<b>Old Restorations:</b>	unknown
<b>Modern restorations:</b>	unknown
<b>Description:</b>	Following on from his description of room B on his floor plan, Estácio da Veiga (1910: 212) adds: At point B” we can still see a rectangular space with the angles down in a concave curve and with some remains of its old mosaic bottom, making it clear that there was another pool in that house, separated from house A by a narrow passage 1.50 metres wide. House B is 8.86 metres long and 5.92 metres wide.
<b>Dating:</b>	The lack of drawings or photographs of the pavement does not allow us to establish a chronology.

Mosaic 3 (Beloto 1985, FAR. 018; ERA 2010: 5) (Figs. 6-7)	
<b>Theme:</b>	geometric
<b>Place and Date of the Find:</b>	Boca do Rio, room C; 1878
<b>Actual Location:</b>	Museum of Vila do Bispo
<b>Architectural Context:</b>	floor of small triangular room separating/connecting with corridor D
<b>Dimensions:</b>	4,00 m (width) x 6,00 m (length) (Beloto 1985), today: 9 m <sup>2</sup>
<b>Chromaticism:</b>	bichromatic: blue and white
<b>Laying Technique:</b>	<i>opus tessellatum</i> ; Size of the <i>tesserae</i> : 10 x 10 mm
<b>Material:</b>	limestone
<b>Support:</b>	movable support
<b>State of Conservation:</b>	The incomplete mosaic had been cleaned and consolidated in 1983 (Beloto 1985) and remained <i>in situ</i> ; when the survey was carried out in 2010, only 9 m <sup>2</sup> of the original pavement remained (ERA 2010).
<b>Old Restorations:</b>	no old restorations were found on the recovered mosaic
<b>Modern restorations:</b>	mosaic consolidation
<b>Description:</b>	<p>Estácio da Veiga (1910: 213), when describing the floor of room C, confined himself to noting that it was «a triangular-shaped house with a mosaic floor, with a narrow passage at the top to corridor D»: He is credited with drawing the junction point of mosaic C and mosaic D in a drawing by his wife (Amélia Claranges Lucotte Estacio da Veiga), who had accompanied him during the work (Estácio da Veiga 1910: 214, number 3A).</p> <p>The survey of the mosaic during the emergency intervention and its subsequent treatment at the Museum of Vila do Bispo<sup>1</sup>, where it is now located, allowed it to be analysed in greater detail. Analysing the decorative syntax of the composition shows that the surface to be decorated is arranged in the <i>Bandkreuzgeflecht Ia</i> system, placed orthogonally (Salies 1974: 3 fig. 3: «Bands that overlap at right angles divide the surface and leave squares between them whose side length is normally twice the bandwidth»; Décor I: 143d).<sup>2</sup></p> <p>In this bichrome mosaic, the larger squares are outlined by a row of blue <i>tesserae</i> on a white background, with the saltire of chevrons as the only decoration in the centre. The smaller squares created by the horizontal and vertical intersection of the bands are presented here in blue, with concave sides whose vertices touch the vertices of the larger squares, in the centre a crosselet of 5 poised <i>tesserae</i>, in white.</p> <p>The composition is bordered by a double row of blue <i>tesserae</i>, followed by 4 rows of white <i>tesserae</i>. The outer boundary is made up of a dentilled simple blue filet, followed by a 16 cm white strip that would connect it to the wall of the room.</p> <p>The technique used to place the <i>tesserae</i> on the carpet is very careful, showing that it was done on site according to a pre-defined programme. On the other hand, the band separating the composition from the wall was filled in with less skill, as is often seen on many floors. The expressiveness of the composition - despite the fact that it is based on a basic system for organising the space to be decorated - is underlined by the perfect symmetry of the motifs and the luminosity achieved by using white as the composition's background - a decorative grammar for which, in the territory of Lusitania that is currently Portuguese, we know of only one parallel: the mosaic of the peristyle of the Roman villa of Pisões (Duran Kremer - Serra 2022: 197-198).</p> <p>The search for parallels for this composition confirms G. Salies' analysis, when she states that the basic scheme of <i>Bandkreuzgeflecht Ia</i> was used above all in the eastern part of the Empire - Greece, where it was used as early as the end of the 2nd century, and Syria, where the first examples date from the 2nd century, but where it became more frequent in the 4th century (Salies 1974: 4), when it was also used more frequently in the workshops of northern Italy (Salies 1974: 4), although Ferdi points out that the <i>Bandkreuzgeflecht Ia</i> motif is also widespread in Africa (Ferdinand 2005: 156). And it is precisely in Africa that we find the best parallel for pavement C: this is the mosaic to the west of Kaid Youssef's estate in Cherchel (Ferdinand 2005: mosaic 131: 155 - 156 pl. LVII). Both in terms of motivation and style, these two pavements are in the same line of conception for the floor decoration. The motivational and stylistic treatment in the Cherchel mosaic is similar, with the only difference being the filling of the larger squares with alternating geometric figures, in a symmetry of motifs that we know from the Pisões peristyle.</p> <p>Even if the two floors from the Roman villa of Milreu, Room A53 and A54 (Teichner 2008: 161-164 fig. 70 fig. 71), appear to be very close to the mosaic C from both a stylistic point of view and in terms of the execution of the composition - in both, the <i>Bandkreuzgeflecht Ia</i> was chosen as the basis for decorating the space unlike mosaic C in Boca do Rio, «the execution strategy is crude and the scheme very simple» (Lancha - Oliveira 2013: 343); more so in mosaic A 53, the composition lacks the lightness and luminosity of mosaic C, the geometric scheme was taken to be the decoration itself, emphasising the outline of the figures created by the system itself.</p>
<b>Dating:</b>	The stylistic and motivational proximity to mosaic 131 by Cherchel (2 <sup>nd</sup> -3 <sup>rd</sup> century), on the one hand, as well as to the peristyle of the Roman villa of Pisões points to a dating of mosaic C in the first half of the 3 <sup>rd</sup> century.



Figure 7 - Mosaic 3 (C), final restoration ©Ricardo Soares

1 Our thanks go to Dr Ricardo Soares, Archaeologist at Vila do Bispo Town Hall, for all the support he has always given our work and for providing the photographs that illustrate the text.

2 The model, very popular in Roman mosaic, works and is also used as a basis for constructing other models (Vargas Vázquez 2016: 284-285).


<b>Mosaic 4</b> (Beloto 1985, FAR: 019; ERA 2010) (Figs. 6, 8)		
<b>Theme:</b>	geometric	
<b>Place and Date of the Find:</b>	Boca do Rio, room D; 1878	
<b>Actual Location:</b>	Museum of Vila do Bispo	
<b>Architectural Context:</b>	corridor	
<b>Dimensions:</b>	3,52 m (width) x 24 m (length) (Beloto 1985) today: 3,1289 m (width) x 8 m (length).	
<b>Chromaticism:</b>	bichromatic: blue and white	
<b>Laying Technique:</b>	<i>opus tessellatum</i> ; Size of the <i>tesserae</i> : 10 x 10 mm	
<b>Material:</b>	limestone	
<b>Support:</b>	movable support	
<b>State of Conservation:</b>	The incomplete mosaic was cleared and consolidated in 1983 (Beloto 1985) and remains <i>in situ</i> . When the survey was carried out in 2010, just over 17,860 m <sup>2</sup> of the original pavement remained (ERA 2010).	
<b>Old Restorations:</b>	Ancient restorations at different points of the pavement: with <i>tesserae</i> that respect the decorative motif of the pavement; others using small river axes mixed with ground ceramics, lime and sand.	
<b>Modern restorations:</b>	mosaic consolidation	
<b>Description:</b>	<p>Like mosaic C, the decoration of mosaic D was based on a system of organisation of the surface to be decorated in the <i>Bandkreuzgeflecht Ia</i> system, placed orthogonally. Its decorative syntax is the same as that of mosaic C, with two exceptions: the composition is bordered on the side by a double row of blue <i>tesserae</i>, followed by 7 rows of white <i>tesserae</i>. The outer boundary is not made by a jagged line, as in C, but by a double row of blue <i>tesserae</i>. The band of white <i>tesserae</i> separating the composition from the wall is 40 cm long. The model, very popular in Roman mosaic, works and is also used as a basis for constructing other models (Vargas Vázquez 2016a: 284-285).</p> <p>In this bichrome mosaic, the larger squares are outlined by a row of blue <i>tesserae</i> on a white background, with the saltire of chevrons as the only decoration in the centre. The smaller squares created by the horizontal and vertical intersection of the bands are presented here in blue, with concave sides whose vertices touch the vertices of the larger squares, in the centre a crosselet of 5 poised <i>tesserae</i>, in white.</p> <p>The composition is delimited by a double row of blue <i>tesserae</i>, followed by 4 rows of white <i>tesserae</i>. The outer boundary is made up of a dentilled simple blue filet, followed by a 16 cm white strip that connects to the wall of the room.</p> <p>Here too, the technique used to place the <i>tesserae</i> on the carpet is very careful, showing that it was executed on site according to a predefined programme. On the other hand, the strip separating the composition from the wall was filled in with less skill, as is often seen on many floors. As was the case with mosaic C, the expressiveness of the composition - despite the fact that it is based on a basic system of ordering the space to be decorated - is emphasised by the perfect symmetry of the motifs and by the luminosity achieved through the use of white as the composition's background - a decorative grammar for which, in the territory of Lusitania that is currently Portuguese, as we have already seen has one parallel in the mosaic of the peristyle of the Roman villa of Pisões (Duran Kremer - Serra 2022: 197-198).</p> <p>The parallels for this pavement are the same as those for mosaic C: the mosaic to the west of Kaid Youssef's property, in Cherchel (Ferd 2005: mosaic 131, 155-156 pl. LVII) which, both motivationally and stylistically, is along the same lines as the pavement decoration. The motivational and stylistic treatment is similar, with the only difference being the filling of the larger squares with alternating geometric figures.</p> <p>At the level of staircase I in Estácio da Veiga's plan, mosaic D would be interrupted by a triangular carpet, decorated with a floral arabesque, making it possible to overcome the small angle in the corridor space without breaking the harmony of the composition chosen for the decoration. In his description of the corridor mosaic, Estácio da Veiga doesn't mention this carpet: we only know it from the drawings made by his wife (Estacio da Veiga 1910: No 3A) (Fig. 9).</p> <p>Similarly to mosaic C, the two pavements of the Roman villa of Milreu: Room A53 and A54 (Teichner 2008: 161-164 figs. 70-71) are the closest parallel to mosaic D, both in terms of the organisation of the space to be decorated - <i>Bandkreuzgeflecht Ia</i> - but on a less careful execution technique. As with mosaic C, mosaics A 53 and A 54 lack the lightness and luminosity of mosaic D in their composition.</p>	
<b>Dating:</b>	For the reasons already explained for mosaic C: First half of the 3 <sup>rd</sup> century.	

Figure 8 – Mosaic 4 (D), final restoration ©Ricardo Soares

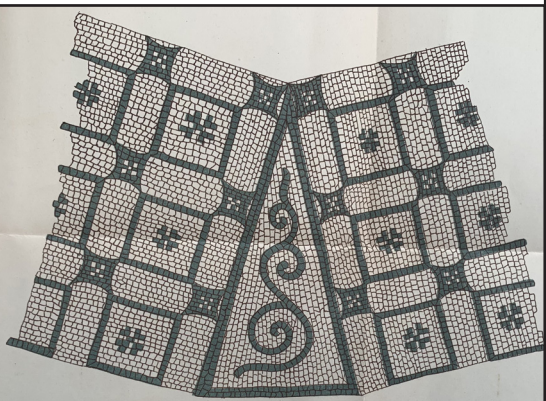


Figure 9 - Drawing 3-A © A. C. L. Estácio da Veiga

Mosaic 5 (Beloto 1985, FAR 020) (Fig. 10)	
<b>Theme:</b>	<i>esquema a compas</i> (variant)
<b>Place and Date of the Find:</b>	room J, 1878
<b>Actual Location:</b>	destroyed
<b>Architectural Context:</b>	floor room J
<b>Dimensions:</b>	3,96 m x 4,65 m (Beloto 1985)
<b>Chromaticism:</b>	polychrome: black, white, yellow, red
<b>Laying Technique:</b>	<i>opus tessellatum</i> ; Size of the <i>tesserae</i> : 10 x 10 mm (?)
<b>Material:</b>	limestone (?)
<b>Support:</b>	original
<b>State of Conservation:</b>	destroyed
<b>Old Restorations:</b>	unknown
<b>Modern restorations:</b>	none, the pavement was destroyed
<b>Description:</b>	<p>The only image of this mosaic that has come down to us is a drawing by Estácio da Veiga's wife, published by him in <i>Arqueólogo Português</i> (Estácio da Veiga 1910: 214 number 3 - B). Estácio da Veiga testifies to the accuracy of the drawing: «The mosaic floors of house J and house K were drawn by sight by my wife, Amelia Claranges Lucotte Estacio da Veiga. They are exact (Estácio da Veiga 1910: 214 note 1) (Fig. 10).</p> <p>The need felt by the author to emphasise the correctness of the design of these two floors is certainly linked to the iconographic programme chosen for each of them.</p> <p>To structure the surface to be decorated in Room J, it was used a <i>Kreissystem Ia</i>, the variant of the central composition of <i>Kreissystem I</i> (Salies 1974: 52), a scheme that corresponds to a «centralised excerpt of an orthogonal pattern of tangent circles: in a square and around a circle, 4 lateral semicircles and 4 quadrants in the corners, these tangent motifs forming 4 concave poised squares» (Décor I: 224 pl. 403a). In this decorative scheme, the radius of the lateral semicircles corresponds to that of the central circle and the quarter circles placed in the corners of the composition. In room J, however, the decorative programme provides for a variant of the system from the outset: the circles and semicircles are not tangent, in the semicircles at the corners and in the basic composition the radius of the circles placed in the corners of the composition is reduced to half the radius of the central circle, filling those same spaces with 3/4 circles and relegating the lateral semicircles to the role of filling the reduced spaces. This results in a «star»<sup>1</sup> composition around the centre circle, which carries the most prominent motif<sup>2</sup> in the whole composition: a flower with cordiform leaves.</p> <p>The composition probably covered the entire carpeted floor of room J. It was bordered on the outside by a double row of black <i>tesserae</i> (although the drawing used the colour green, we believe the <i>tesserae</i> were black, as is usual in Roman mosaics), followed by four rows of white <i>tesserae</i> and finally two rows of black <i>tesserae</i>. The central square of the composition was then bordered all round by a polychrome, concentrated row of intersecting semicircles, forming ogives and scales<sup>3</sup> (Décor I: 98 pl 49a), filled alternately in white, yellow, red and black. The central composition is then further delimited by a bichrome serrated saw-pattern in yellow and black, creating the effect of a serrated zigzag (Décor I: 36 pl. 9c):</p> <p>The central motifs are delimited towards the centre by a double jagged line in black and white (variant of Décor I: 28 pl. 2 d); In the central circle the composition is further underlined by concentric lines of black and white <i>tesserae</i>, which include a bichrome serrated pattern in yellow and black. The spaces between the different geometric figures have been coloured in unified yellow.</p> <p>The corners of the composition are filled with a cordiform leaf in black and red, surrounded by two stems, and a pelmet with volutes and the central apex extended into a closed flower bud, also in black and red. The motifs are placed in opposite corners and point towards the outside of the composition.</p> <p>The motif of the central circle is considered by Correia to be «the most beautiful realisation of this type of flower with cordiform leaves: it is made up of four cordiform leaves, with the vertices pointing to the four angles of a small square placed in the centre» (Correia 2005: 35 est. 1 fig. 1).</p>



Figure 10 – Mosaic 5 (J), Drawing 3-B © A. C. L. Estácio da Veiga

- 1 Santos Rocha should undoubtedly be quoted here: “In this east chamber, which we dug up again, we found a mosaic pavement, already badly damaged, depicting a large star, with a fancy border around it” (Rocha 1986: 78). It could be this pavement: it’s certainly a hypothesis to consider. Similar star design in a mosaic from the Roman villa of El Ruedo (almedinilla, Córdoba) (Vargas Vázquez 2016: 114), Design F9 (Vargas Vázquez 2016: 249).
- 2 A very interesting variant in Écija, although without a central circle (Vargas Vázquez 2017: 352-353 fig. 7).
- 3 The border of scales and ogives is very typical in Ecija and in Baetica in general (Vargas Vázquez et al. 2017: 39-40. It is also very common in mosaics of Roman villas in Baetica (Vargas Vázquez - López Monteagudo 2016: 433).

<p><b>Description:</b></p>	<p>The motif of the <i>pelta</i> taken as a decorative element of a geometric figure in the decoration of the pavement is very common not only in Hispania<sup>1</sup> but also in Africa, either as an isolated feature as in Boca do Rio or integrated into a linear sequence with other motifs<sup>2</sup>. The closest parallel can be found in room F of Abicada (Duran Kremer 2011: fig. 20) where, however, the flower bud on the extension of the central point has the same colour as this. Another square in Room G of Abicada (Duran Kremer 2011: fig. 4, fig. 5), also used the <i>pelta</i> as an individual decoration of a geometric figure: it is very similar to the one in Room J but differs from it in the extension of the vertices and the double colour of the flower bud (yellow and red).</p> <p>The decorative semantics of mosaic number 5 bear witness to its exquisite execution from the very first moment of reflection and choice of composition. A small detail proves this: each corner of the row of secant semicircles is filled with a red or yellow spindle in opposite corners. The colour sequence of the warheads that follow it on both sides is the same on two opposite corners, without any duplication or flaw in the colour sequence.</p> <p>With perfect diagonal symmetry, the use of colour and the placement of the motifs emphasise the central point of the whole composition: the small central square, executed in two-colour dotting.</p> <p>The mosaic of room J finds its closest parallel in Milreu's room 51: the organisation of the space to be decorated also follows the variant of the Kreissystem Ia that we find in Boca do Rio; although with a softer polychromy, where black and white tones dominate, with some touches of grey, yellow and red, room 51 repeats the compositional semantics of room J, although here the carpet is limited on the outside by a line of opposing tiles, outlined in black on a white background. It is in this room that we find not only the central motif of Boca do Rio's room J - the formation of a star by the internal geometric shapes and the only repetition of the cross as the carpet's central motif, but also the use of the dotting technique used to create the diagonal crosses and the vertical cross of room J. In this technique, the rows of <i>tesserae</i> expressing the chosen motif are placed on the edge, with one or two rows of white <i>tesserae</i> framing the outside of the motif, also on the edge, each alternating with a row of white <i>tesserae</i> also placed on the edge, thus making the motif stand out even more in the composition.</p>
<p><b>Dating:</b></p>	<p>The proximity between the flooring in room J and that in Milreu's room 51 points to a possible common labour force. However, the execution of the mosaic in Milreu's room 51 is not as careful, the decorative grammar is more overloaded, there is more filling in of the free spaces, which leads us to consider the J mosaic to be earlier than the one in Milreu's room 51, which Lancha - Oliveira (2013: 330) attributes to the end of the 3<sup>rd</sup> century.</p> <p>For these reasons, we date the mosaic in room J to the first half of the 3<sup>rd</sup> century.</p>

1 Especially in Baetica, where it can be seen decorating mosaic fields, borders or as an isolated figure (Vargas Vázquez 2016: 275).

2 See Duran Kremer 2024.

Mosaic 6 (Beloto 1985, FAR. 6), (Figs. 11-13)	
<b>Theme:</b>	<i>esquema a compas</i> (variant)
<b>Place and Date of the Find:</b>	1878
<b>Actual Location:</b>	Museum of Lagos, Nucleus José Formosinho <sup>1</sup>
<b>Architectural Context:</b>	room K
<b>Dimensions:</b>	3,6 m x 4,4 m
<b>Chromaticism:</b>	polychrome: black, white, blue, yellow/brown
<b>Laying Technique:</b>	<i>opus tessellatum</i> ; Size of the <i>tesserae</i> : 10 x 10 mm
<b>Material:</b>	white and yellow limestone and a blue-coloured rock
<b>Support:</b>	original, cement-reinforced
<b>State of Conservation:</b>	1/3 of the original mosaic
<b>Old Restorations:</b>	to be checked as part of the cleaning and consolidation process
<b>Modern restorations:</b>	consolidation of the mosaic
<b>Description:</b>	<p>Like the mosaic in room J, the only representation of the mosaic in room K in its entirety is provided by the drawing of it made on site by Estácio da Veiga's wife (Estácio da Veiga 1910: 214 note 1, N° 3C) (Fig. 11).</p> <p>In order to structure the surface to be decorated in Room K, a variant of the so-called compass scheme was used, in a composition that would traditionally feature a centre circle, side semicircles and quarter circles at the corners. In Room K, however, the corners are not filled by a quarter circle, creating space for the introduction of a motif that will order the entire semantics of the composition: the vase as a link defining the diagonals of a composition where the centre is left free at first glance. Like the mosaic of room J, the only representation of the mosaic of room K in its entirety is provided by the drawing of it made on site by the wife of Estácio da Veiga (Estácio da Veiga 1910: 214 note 1 N° 3C).</p> <p>The iconographic programme chosen for this room required, a priori, a very careful organisation of the space to be decorated: the composition is planned on a square carpet, delimited on the outside by three rows of white <i>tesserae</i>, followed by the linear composition of an undulating row of alternately inverted <i>peltae</i> framing the central composition, two coloured (white and blue), on a dark background, with a pair of tassels on the central point. This is followed by two rows of white <i>tesserae</i>, two rows of black <i>tesserae</i> and a bar of 4 rows of white <i>tesserae</i>. Then the lateral semicircles are defined by a double line of black <i>tesserae</i> and alternately filled with a pelmet with volutes and extended vertices and a flower. Inside, the semicircles and corners of the composition are defined by an asymmetrically shaded simple guilloche on a black ground (Décor I: 120 pl. 70 j). In the space thus defined at the corners of the square is a vase, in symmetrical blue or brown in opposing compositions. From the mouth of each vase comes a stream of water that connects it to the diagonally opposite vase, forming a diagonal cross. At the point where the four streams of water intersect, a vertical cross is formed, defined by a simple line of black <i>tesserae</i> placed on top. The whole composition is set against a white background, which emphasises the central images even more.</p> <p>Probably to fill the space between the composition and the walls, two wide bands of 15 rows of black <i>tesserae</i> were arranged on two opposite sides of the composition, decorated in turn by a spaced line of cross tassels.</p> <p>Despite the chromatic disparities between the polychromy of A. Lucotte Estácio da Veiga's drawing and that shown by the mosaic fragment in the Lagos Museum (Fig. 12) we can see that the drawing is correct. In fact, we are not dealing with a system for organising the pavement according to the Kreissystem IA, but rather with an interpretation of this same system for the composition of a unique decorative grammar, expressing an underlying message (Duran Kremer 2023: 141 - 142). The examples closest to the chosen semantics are always circumcentric compositions, with diagonals marked by the vases with vegetal motifs placed in the corners of the composition<sup>2</sup>. In most cases they are plant compositions, corresponding to pavements from Tunisia or, in one case, Jordan (Décor II: 198 - 199 pl. 383). In the oecus of the Maison de Nicentius (Corpus Tunisie II: 39-40 pl. XX - XXI) we even see a repetition of the scheme in eight panels, all with a central geometric figure. We also find parallels for these pavements in Hispania, such as the pavement in the villa of Prado (CME XI: 21 - 23 lam. 39) and in the Early Christian basilica of La Illeta del Rei (Palol 1967: 228-230 pls. XLVI-L).</p>



Figure 11 - Mosaic 6 (K), Drawing 3-C ©A. C. L. Estácio da Veiga

- 1 This mosaic, as well as all the other mosaics in the Lagos Museum, are currently being prepared to become part of the José Formosinho section of the renovated Lagos Museum, which is why they are not accessible for checking the original colours of the *tesserae* in particular: the watercolour published by Estácio da Veiga shows a different polychromy to the one that can be seen in the photographs taken of the fragment of mosaic preserved and displayed on one of the walls of the Lagos Museum. The José Formosinho section of the enlarged Lagos Museum is due to open in 2025, so we'll be able to confirm the mosaic's polychromy on place.
- 2 See also a mosaic of the Roman villa of La Estación (Antequera, Málaga) with kraters in the corners, decorated with swastikas, from which sprout vegetal elements (Vargas-Vázquez - Romero Pérez 2021: 326-328).

<p><b>Description:</b></p>	<p>The K mosaic, however, stands out from all of them for the sobriety, clarity and luminosity of its decorative composition (Fig. 13). What's more, despite combining motivic elements found in the mosaic pavements of the southern Algarve - an undulating row of alternately inverted, framing the central composition, two coloured with a pair of tassels on the central point can be seen in Milreu (Oliveira 2010: Nr. 28b Vol. II pl. XLVII; Oliveira 2010: Nr. 33A pl. LXVI 1, 2, LLXVII 1; Lancha - Oliveira 2013: Nr. 30 pl. XLII), at Cerro da Vila (Lancha - Oliveira 2013: Nr. 75 pl. CLXX b), among others - creates a decorative syntax that, as far as we know, is unique in the Roman mosaic landscape.</p> <p>This analysis can be repeated for the other motifs: the bloom in two opposing semicircles of the K mosaic is decorated in one of the squares of the mosaic in room G of Abicada (Duran Kremer 2011: 355-356 fig. 4), the vase has its counterpart in the mosaic in room C4 of the same villa (Duran Kremer 2023: 135 fig. 6).</p> <p>The decorative discourse of diagonals forming a cross in the centre of the composition, with a vertical cross in the centre of the first, has the only parallel we know of in Milreu, in room 51. There, the diagonal cross is formed by the five squares into which the centre circle is divided, with the only decoration in the middle being a vertical cross in dotted lines.</p>
<p><b>Dating:</b></p>	<p>The motivational proximity between the K mosaic and the mosaic of Milreu's floor No. 51 is, like what happened previously with the J mosaic, noteworthy and points to a programmatic motivational vision and, above all, to a common workmanship. However, the style of the composition and the execution of the programme chosen for the Milreu room leads to a greater use of space and a more marked prominence of the motifs, drawn in black on a white background. Placed by Lancha/Oliveira at the end of the 3<sup>rd</sup> century (Lancha - Oliveira 2013: 330), this mosaic seems to us to be later than the mosaic in room K, which we place in the first half of the 3<sup>rd</sup> century</p>



Figure 12  
Mosaic 6 (K), fragment ©Duran Kremer.



Figure 13  
Mosaik 6 (K), detail  
©Duran Kremer.



Mosaic 7 (Beloto 1985, FAR. 7) <sup>1</sup>	
<b>Theme:</b>	geometric
<b>Place and Date of the Find:</b>	in one of the rooms of the <i>pars urbana</i> , 1878
<b>Actual Location:</b>	Museum of Figueira da Foz, Inv. 4227
<b>Architectural Context:</b>	unknown According to Sá (1959, 34), Santos Rocha found the mosaic badly damaged, and it was lost. A few years later, however, a fragment of this mosaic was identified as being in the Figueira da Foz Museum (no. 4227), where it had been taken by Santos Rocha himself (Santos 1971: 4, 86 fig.18) (Fig. 14).
<b>Dimensions:</b>	unknown
<b>Chromaticism:</b>	polychrome: black/blue, white, yellow
<b>Laying Technique:</b>	<i>opus tessellatum</i> ; Size of the <i>tesserae</i> : 10 x 10 mm
<b>Material:</b>	limestone white and yellow, and "a bluish rock"
<b>Support:</b>	plaster-reinforced original
<b>State of Conservation:</b>	fragment
<b>Old Restorations:</b>	unknown
<b>Modern restorations:</b>	reinforcement of the original support
<b>Description:</b>	<p>The only description we have of the original mosaic is given to us by António dos Santos Rocha (Rocha 1986: 78), who was to become the founder of the Museum of his name in Figueira da Foz:</p> <p>"In that chamber to the east, which we dug up again, we found a mosaic pavement, already badly broken, perhaps representing a large star, and with a border of phantasy around it. The cubes (<i>tesserae</i>) are made of white and yellow limestone and a bluish rock. The sea was not the main element of destruction here. The mortar on which the mosaic is based was prepared with sea sand and it crumbles easily with the simple pressure of your finger".</p> <p>We would therefore be looking at a mosaic with a geometric decoration in the centre, delimited by a "fantasy border" that we can't define with the information we have. However, the photograph we have does not allow us to analyse the decorative grammar of the pavement, nor even the chromaticism: while the mosaic is described by Rocha and Beloto as polychrome, Abraços (Abraços 2005: Anexo II, nr.205-07, 135) considers it to be bichrome (which, referring only to the fragment in the Museum, is probably correct). We will therefore limit ourselves to analysing the fragment that still exists today.</p> <p>The photograph of the fragment of this mosaic taken by A. Santos Rocha to Figueira da Foz and published by Santos (1971: fig. 18) shows a geometric composition, probably bichrome in black on a white background, ordered according to the Bandkreuzgeflecht III system (Salies 1974: 5, 13): an orthogonal composition of interlacing circles and squares tangent through the vertices that determine rectangles with the largest sides concave and the smallest straight. The squares are delineated by a row of black <i>tesserae</i> and filled in with a black and white chequered pattern; the circles are defined by a row of black <i>tesserae</i>, followed by a second, alternately jagged with black and white rectangles, four <i>tesserae</i> long and two <i>tesserae</i> deep. In the centre are two opposing black quarter-circles separated by two white <i>tesserae</i>. The figure of the rectangle with concave and straight sides is repeated inside the rectangle in black.</p> <p>We don't know if this fragment belongs to the "cercadura de phantasia" referred to by Rocha in his description of the mosaic: from a motivational and stylistic point of view, it doesn't seem to fit in with the iconographic programme of the other mosaics and is difficult to interpret.</p> <p>In Portugal we find numerous examples of this decorative scheme, almost all dating back to the 3<sup>rd</sup> to the 5<sup>th</sup> centuries (Abraços - Wrench 2019: 85-88). In Spain we can find a few examples of this spatial planning system, but no comparisons can be made either from a motivational or stylistic point of view<sup>2</sup> (Corpus España X: 1993: 23 Lám. 6 Lámina 25 número 6; Corpus España XII: 1998: 11 Lám.14 número 11), and in Tunisia (CMT II, 1987: 26 -27 pl. XIV 267 A pièce XV).</p> <p>At this point, any consideration of the date or even the place of origin of this fragment would be pure speculation, especially since the urban area was occupied from the 1st to the 5th century, showing different phases of spatial planning (Bernardes et al. 2022: 1427 - 1430). It is possible, however, that it comes from one of the areas where mosaics were found, but of which we have neither a description nor a watercolour.</p>
<b>Dating:</b>	The style and execution of this composition differs diametrically from what has come down to us, whether by drawing or in fragments. A comparison with the different examples in Hispania would lead us to consider this pavement to be later than the previous ones, probably from the 4 <sup>th</sup> century.



Figure 14 - Mosaik 7 © A. M. Ferreira

1 I would like to thank Dr. Ana Margarida Ferreira from the Figueira da Foz Museum for her information and for providing the photograph of the fragment in that museum (photograph by Manuel Santos).

2 An interesting parallel in a mosaic from the Roman villa of Fuente Álamo (Puente Genil, Córdoba) (Vargas Vázquez 2016: 182-186 Lám. 86F y 86G). Design B16 (Vargas Vázquez 2016: 212).

<b>Mosaic 8</b> (Beloto 1985, FAR. 023); fragments 1, 2, 3 e 4 (Figs. 15-16)		
<b>Theme:</b>	geometric	
<b>Place and Date of the Find:</b>	in a room of the <i>pars urbana</i>	
<b>Actual Location:</b>	Lagos Museum	
<b>Architectural Context:</b>	probably room floor	
<b>Dimensions:</b>	unknown	
<b>Chromaticism:</b>	polychrome: black, white, yellow, red, grey.	
<b>Laying Technique:</b>	<i>opus tessellatum</i>	
<b>Material:</b>	limestone	
<b>Support:</b>	plaster-reinforced original	
<b>State of Conservation:</b>	fragment	Figure 15 - Mosaik 8 ©Duran Kremer
<b>Old Restorations:</b>	unknown	
<b>Modern restorations:</b>	The mosaic is currently being cleaned and given a new support for display in the Nucleus José Formosinho of the Lagos Museum, which is under construction. We hope to be able to obtain information about any restorations that may have been carried out.	
<b>Description:</b>	<p>The mosaic fragment was found "in one of the rooms of the Boca do Rio building" (Santos 1971: 87, 5) and brought to the Museum of Lagos by its Director, Dr. José Formosinho. Geometric, it corresponds to the external delimitation of what would probably have been a centred composition (Fig. 15).</p> <p>The composition is bordered on the outside by a black line of two <i>tesserae</i>, jagged, separated from the wall by a white band that would have been relatively wide, decorated with an intermittent line of cross flowers in black.</p> <p>This is followed by a linear composition of a row of vertical <i>peltae</i> facing each side of a square on a white background (Décor I: 109 pl. 59 a). The square is outlined by a double row of black <i>tesserae</i>. The <i>peltae</i> are edged with black on the outside, white on the inside and alternately filled in yellow or grey. The vertices of the <i>peltae</i> are extended in volutes, inside the <i>peltae</i> over the central point is a white chevron.</p> <p>The inner carpet is separated from the surrounding band by a double row of black <i>tesserae</i> followed by three rows of white <i>tesserae</i> and again a double row of black <i>tesserae</i>. The central composition would probably follow a Rautensternsystem type of spatial organisation: however, the mosaic surface we have only allows us to see the use of triangles, squares and rectangles, filled in like the geometric figures of the surrounding strip with a pelta, an inscribed square. The rectangle is filled with a flower Correia type 2 (flowers with lotus calyxes), showing "completely different shapes from the various flowers mentioned in this classification (Correia 2005: 41 Est. 5 fig. 12).</p> <p>Fragments 1, 2, 3 and 4 belong to the same mosaic: although very fragmented, it is possible to identify the filling motifs as being the same in execution, style and polychromy as the larger fragment (Fig. 16).</p> <p>The linear composition of a row of vertical <i>peltae</i> bordered on each side by a square on the edge on a white background (Décor I: 109 Pl. 59 a) is not very common in Hispanic mosaics. Although it can't be considered the most frequent decorative syntax in the delimitation bands of the central carpet compositions, another variant with a row of vertical <i>peltae</i> facing each side of a lozenge (Décor I: 109 Pl. 59 b) is found in Hispanic pavements<sup>1</sup> (Corpus España III: 36 - 38 Lam. 23; Corpus España V: 1982: 29 -30 Lam. 14 fig. 24).</p> <p>It is in the Roman villa of Abicada (Mexilhoeira Grande) that we find the closest parallel to this decorative syntax of a surrounding band (Teichner - Romero 2018: 268 fig. 14), in room C 2: badly destroyed, the mosaic in this room corresponds in style and decorative grammar to the fragments from Boca do Rio.</p>	
		
<b>Dating:</b>	First half or middle of the 3 <sup>rd</sup> century.	

<sup>1</sup> It is the variant of diamonds framed with peltas, very similar. This last model is very typical in Baetica. Different examples in Vargas Vázquez 2016. It is also very common in mosaics of Roman villas in Baetica (Vargas Vázquez - López Monteagudo 2016: 433)


<b>Mosaic 9 (Fig. 17)</b>	
<b>Theme:</b>	geometric
<b>Place and Date of the Find:</b>	in a room of the <i>pars urbana</i>
<b>Actual Location:</b>	Lagos Museum
<b>Architectural Context:</b>	probably room floor
<b>Dimensions:</b>	unknown
<b>Chromaticism:</b>	polychrome: black, white, yellow, red, grey.
<b>Laying Technique:</b>	<i>opus tessellatum</i>
<b>Material:</b>	limestone
<b>Support:</b>	plaster-reinforced original
<b>State of Conservation:</b>	fragment
<b>Old Restorations:</b>	unknown
<b>Modern restorations:</b>	The mosaic is currently being cleaned and given a new support for display in the Nucleus Formosinho Sanches of the Lagos Museum, which is under construction. We hope to be able to obtain information about any restorations that may have been carried out.
<b>Description:</b>	<p>Small mosaic fragment with a linear composition of a pair of backed <i>peltae</i>, the central point of which touches a square at the tip (Fig. 17).</p> <p>The similarity recorded with the surrounding band of mosaic 8 and the fact that this fragment was brought to the Lagos Museum together with the fragments of number 8 justify its interpretation as a row of vertical <i>peltae</i> facing each side of a square on its edge on a white background (Décor I: 109 pl. 59 a).</p> <p>However, there are two differences which, in the absence of more information about the place of finding of the composition in which this fragment was integrated, lead us to consider it independently of the previous one: the polychromy of the <i>peltae</i> in this fragment is simplified: the <i>peltae</i> are filled with the same colour and not in alternating colours. Another important point: the linear composition is bordered on both sides by a dentilled fillet of a double row of black <i>tesserae</i>.</p> <p>However, these differences don't mean that they couldn't belong to a common floor: a working hypothesis to consider would be that they belong to room B of Estácio da Veiga's plan, a room with a floor on two different levels and could allow two minimally different decorative semantics to coexist. Only further study of the site of Boca do Rio will eventually be able to provide us with more information.</p>
	
<b>Dating:</b>	First half or middle of the 3 <sup>rd</sup> century.

Figure 17 - Mosaik 9 ©Duran Kremer

## Conclusion

The mosaics of the urban pars of Boca do Rio, for many years the subject of sporadic references at conferences or in international publications, have now been the subject of a more documented and complete study, thanks to the salvage intervention in 2010 (ERA 2010) and the subsequent publications of new data on archaeological sites (Bernardes - Medeiros 2016): the survey of the corridor's mosaics, which until then had been inaccessible, the information on the new finds of both mural paintings and ceramics, among others, are milestones in the history of the analysis of these mosaics and their integration into the Roman mosaic landscape.

In fact, the project "Boca do Rio: a fishing site between two seas" (Bernardes et. al 2022), by carrying out a global, enveloping survey, study and documentation not only of the *urban pars* or *domus* of that archaeological site but also moving northwards, where testimonies of the port facilities and industrial activity established there can still be found today, made it possible to chronologically situate the different phases of occupation and renovation of the *villa's* structures, and a chronological classification of the mosaics themselves.

When, in 2009, on the occasion of the XI. International Colloquium on Ancient Mosaics, referring to the significance of the Abicada mosaics in the context of Roman mosaics in the Algarve, we considered that "from the work carried out so far, which also includes the *villae* of Boca do Rio, (Carro da Vila, Milreu) and, in part, what still exists of Luz, we can see that if not the existence of a regional mosaic workshop ... at least the existence of a clear preference on the part of the owners when it comes to decorating their *villae*" (Duran Kremer 2011: 358) and we placed this workshop in the Algarve at the end of the 3<sup>rd</sup> century.

The study and publication of the East Algarve mosaics, subsequent to this communication, introduced a moment of doubt about the correct dating of the Boca do Rio and Abicada mosaics: the semantics intrinsic to each of the compositions taken as a term of comparison testified to a motivational correspondence, no doubt, but also to a time gap between the different manifestations of the same workshop. The work at Boca do Rio was thus able to confirm the accuracy of this doubt, so we could place the date of the Boca do Rio pavements in the first half of the 3<sup>rd</sup> century.

However, the study of these mosaics also allows us to identify the workshop responsible for executing the mosaics in Boca do Rio, Abicada and, later, rooms 51 - 54 in Milreu. It is not only because of the use of unusual or even unparalleled systems for organising the space to be decorated (Lancha - Oliveira 2013: 329 notes that there are no parallels for this scheme in Décor II - mosaic 51 by Milreu). Also in Boca do Rio the decorative grammar of mosaic K, by replacing the traditional central circle with a cross of diagonals that cross the entire space and are further emphasised by a vertical cross, is proof of a very specific interpretation of the decoration of the space.

This interpretation is repeated on the floor of room 51 in Milreu, in a more overloaded style and with a conscious underlining of the "cross" motif throughout the composition. In fact, in addition to the diagonal cross formed by the squares dividing the central circle, each of them is decorated with a variant of the so-called anchored cross (Blanchard et al. 1973: 23 fig. 37). The same motif is repeated in two opposite semicircles of the same room.

The vertical central cross is executed in the pointillist style, which we first encountered in the K mosaic of Boca do Rio in the jets of water that cross the

surface of the pavement, diagonally, from one vase to its opposite and in the central cross of this same mosaic, and which is repeated in the Milreu mosaic in the 4 parallel lines of black *tesserae* that decorate the small lateral semicircles.

On the basis of these common traits, found so far only in the K mosaics from Boca do Rio and 51 from Milreu, and the motivational similarities already noted with pavements from Abicada, we believe we are dealing with one and the same mosaic workshop - which we will call a "centre cross workshop", in reference to its own motif.

One question remains open, however: the intrinsic meaning of the cross in these mosaics from southern Lusitania. The motif of water gushing out of a vase is well documented in the territory of present-day Portugal in the mural painting of the Palaeo-Christian basilica of Troia (late 3<sup>rd</sup> century), a symbol of the baptismal initiation that leads the soul into the bosom of Christendom.

This use of symbols belonging to a common cultural memory before and after the Christianisation of the Roman Empire has already been dealt with in detail (Duran Kremer 2023: 131-144). However, its reinforced use in southern Lusitania, by a specific workshop of mosaists, should be analysed more closely in the future.

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