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Conuentus Bracaraugustanus Roma Mozaikleri Korpusuna Katkı: Felgueiras, Porto, Portekiz'deki Sendim Roma Villası'nın Geometrik Mozaiğinin İncelenmesi

Licínia WRENCH* - Marcelo MENDES PINTO** - Fátima ABRAÇOS***

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Abstract

The objective of our work is to study for the first time a Roman mosaic from the Roman Villa of Sendim, within the framework of a project coordinated by Fátima Abraços. This project aims to survey and analyse the Roman mosaics belonging to the Conuentus Bracaraugustanus, whose capital city was Bracara Augusta.

The Villa, in the parish of Sendim, Felgueiras, Porto, is part of the mentioned Conuentus. Its excavation began in 1992, with the uncovering of several compartments of a domus and of structures belonging to the balnea. Later, the musealisation of the archaeological site was carried out with the conservation in situ of the mosaic fragments found in a cubiculum.

The collected archaeological material established the occupation of the Villa between the 1^{st} and 6^{th} centuries AD. It also ascertained that the domus had a phase of restructuring and expansion between the end of the 3^{rd} century and the end of the 4^{th} century. This would correspond to the completion of the analysed mosaic.

Keywords: Villa of Sendim, Portugal, Conuentus Bracaraugustanus, geometric mosaic, Corpus of the Roman Mosaics.

Öz

Çalışmanın konusu Fátima Abraços tarafından koordine edilen bir proje çerçevesinde, Sendim Roma Villası'ndan ilk kez bir Roma mozaiğinin incelenmesidir. Bu proje, başkenti Bracara Augusta olan Conuentus Bracaraugustanus'daki Roma mozaiklerini incelemeyi ve analiz etmeyi amaçlamaktadır.

Felgueiras, Porto'da bulunan Sendim mahallesindeki Villa, Conuentus'un bir parçasıdır. Kazı 1992 yılında, bir domusun ve balneaya ait yapıların bazı bölümlerinin açığa çıkarılmasıyla başlamıştır. Daha sonra, arkeolojik alanın müze haline getirilmesi, cubiculumda bulunan mozaik parçalarının yerinde korunması ile gerçekleştirilmiştir.

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Toplanan arkeolojik materyal, Villa'nın kullanımının MS 1. ve 6. yüzyıllar arasına tarihlendiğini göstermektedir. Ayrıca, domusun 3. yüzyılın sonu ile 4. yüzyılın sonu arasında bir yeniden yapılanma ve genişleme aşamasına sahip olduğu tespit edilmiştir. Bu, analiz edilen mozaiğin tamamlandığı döneme karşılık gelmektedir.

Anahtar Kelimeler : Sendim Villası, Portekiz, Conuentus Bracaraugustanus, geometrik mozaik, Roma Mozaikleri Korpusu.

Introduction

The parish of Sendim, municipality of Felgueiras, district of Porto, is about 35 km from Braga, integrating, in Roman times, the *Conuentus Bracaraugustanus* (Fig. 1).



Figure 1 Location of the Roman *Villa* of Sendim, Felgueiras, Porto, Portugal (Google earth).

In 1992, in the opening of the foundations of a house south of the church of S. Tiago of Sendim, remains of walls, many fragments of *tegulae* and abundant vestiges of Roman ceramics of varied typology were found (Fig. 2).



Figure 2 The Roman *Villa* of Sendim and the church of S. Tiago of Sendim (Google earth).



Figure 3 The Interpretive Centre and Archaeology Office (©.Mendes Pinto).



Figure 4 Location of the parish of Felgueiras, Porto (©Mendes Pinto).

Figure 5

Location of the Roman *Villa* of Sendim, in the parish of Felgueiras, Porto, Portugal (©Mendes Pinto). The construction work was interrupted, with the agreement of the owner and an emergency archaeological excavation was carried out by undertaking two surveys that not only confirmed the importance of the elements detected but it immediately revealed the existence of geometric mosaic-paved floors, reinforcing the hypothesis of the existence of a Roman *Villa*.

The archaeological excavations that followed, under the direction of Marcelo Mendes Pinto and with the technical support of the Regional Services of Archaeology of the Northern Area of the old Portuguese Institute of Cultural Heritage (IPPC) and the collaboration of the Professional School of Archaeology of Freixo (Marco de Canaveses, Porto), had the main aim to understand the scattering of the ruins across the land.

The state of conservation of the walls and floors at the time made it possible to fully glimpse the layout of the *pars urbana* plan of a *Villa*, head of a large agricultural property of the Roman period, for the first time on the north part of the river Douro.

It was only in 1997 that the archaeological site was classified as Property of Public Interest (Law Decree no. 67/97 of 31st December). In the same year, and by the initiative of the Municipality of Felgueiras, the archaeological excavations were resumed and have been carried out regularly since then, leading to an in-depth study of the origin of the Roman settlement in the region until the arrival of the Suevi and the way the village managed to last throughout barbarian times.

The estate exhumed in the archaeological excavations is very varied and some of the most representative pieces are on exhibition in the Interpretive Centre that supports the ruins. The excavations Archaeology Office is located in the same place (Fig. 3).

Geographical Location of the Villa

The ruins are located in a northwest-facing spur at the base of the Castro of Sendim, which has been populated from the 4^{th} century BC until at least the beginning of the 2^{nd} century AD.

The spur dominates a wide valley nestled between the castro to the southeast, the hills of Santa Quitéria-S. Domingos to the west, and the foothills of the Sabagudo mountain range to the northeast and to the east, where the Jugueiros river flows (Figs. 4-5).



Sendim controlled the Jugueiros valley, through which the crossing between the valley of the Vizela river and the Sousa river basin and the Tâmega river valley was done. It was, therefore, an important settlement, since in conjunction with the castro of Senhora Aparecida, it also controlled the access to the tin mines of the Seixoso region, which had been fundamental to the bronze metallurgy since the Second Millennium¹.

The house, whose remains have been excavated systematically since 1997, seems to be the result of the expansion and the remarkable improvement of the late third and early fourth century of another building which had previously existed here in the second half of the first century. This can be seen by the stratigraphy by the south façade of the building, where, in the deepest layers behind the *triclinium* and in the foundation ditches that point to its probable construction for the Flavian period, a *dupondius* from Tiberius issued between 16 and 22 AD with marks of intense circulation appeared, as well as ceramic fragments in *Terra Sigillata Hispanica* (TSH), polished fine grey ceramics (Centeno et al. 2014: 291-308) and thin-walled pottery with mammillary decorations. There have also appeared fragments of the so-called "*bracarense* ware", with chronologies established between the middle of the first century and the second century (Morais 2005; Delgado - Morais 2009: 25-32).

The Master of the Domus and the Building Programme

The name of those who settled here and built this great manor house is not known to us at the current state of the investigation, but it was probably a Roman lord of fortune, perhaps of *Bracara Augusta* and possibly connected to his administration, who decided well on the economic potential of the region.

As mentioned in the medieval Portuguese documentation of the 12th century, the place name Sendim seems to derive from the genitive of the anthroponym of Germanic origin *Sendini*, of *Sendinus*, as noted by Ruy de Serpa Pinto in 1932. When he found Roman vestiges near this place, he considered them as belonging to a *Villa* that he called *Villa Sendini* (Pinto 1934: 376-380).

The building programme of the house (Fig. 6) as we know it corresponds to its last phase of the time when it was last in use, and it develops around a large rectangular central space; the peristyle, probably a portico, to which the *triclinium* was opened, the noble room of the house, which at this stage, and by its large dimensions, may already be called αcus .

The access to the bedrooms, *cubicula*, was made through the two big corridors that flank the peristyle; two open compartments; living rooms; kitchen; pantries and the other compartments. On the north side of the house, at the other end of the peristyle, another large room paved with mosaics, still only partially excavated, seems to function as a summer *triclinium* (or *æcus*), but cooler.

To the west side, there is a *balnea* with its hypocaust and *praefurnium*, and the granite pillars that support the *suspensura* are still *in situ*. The *caldarium* is located above and next to it possibly the *tepidarium*. Closing on the west side, there is a large tank of cold water half-destroyed, which we assume to be either a *natatio* or a mirror of water, possibly with fish for leisure and enjoyment of its inhabitants.

¹ This castro, whose archaeological excavations were directed by Marcelo Mendes Pinto in 2005 and 2016, revealed an occupation from the Late Bronze Age to the Roman period, having been found in its vicinity in 1903 an important set of gold bracelets that are deposited in the National Museum of Archaeology and constitute the so-called "Treasure of Arnosela". In the 40s of the twentieth century, masons have found two bronze axes on the slopes of the castro, whose whereabouts are unknown.

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Figure 6 Ruins of the roman *Villa* of Sendim (Google earth).



Description and Comparative Study of the Mosaic

The floors from the corridors, the *triclinia* and, at least, the one from a possible *cubiculum* were covered with mosaics. At the time of its discovery, this mosaic was the one that displayed the best state of conservation, still exhibiting traces of stucco on the walls (Fig. 7).



Figure 7

Plan of the Roman *Villa* of Sendim. The *cubiculum* with the mosaic coloured in yellow (Archive Mendes Pinto. Plan executed by José Ribeiro, Archaeology Office of Felgueiras Municipality).

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From the existing fragments and the *tesserae* marks left behind on the *nucleus* where they once laid on, it was possible to suggest a reconstruction of the used compositional patterns and of some of the filling motifs present on the design (Figs. 8-9).

Figure 8

Mosaic at the time of its discovery, where it is possible to see the negative of the *tesserae* (©Mendes Pinto).



The entire *opus tessellatum* floor consists of two geometric carpets, with the main carpet being square $(4, 60m \times 4,60m)$ and the smaller one rectangular $(4, 60m \times 2,20m)$. Both carpets are connected by a narrower, rectangular and reentrant band, laid upon a step. The main and larger mosaic presents a centralized pattern, in an octagon and around a star of 8 lozenges, of 8 lateral squares set around the star, forming lozenges perpendicular to the diagonals. The octagon is

Figure 9 Back detail of the mosaic (©Mendes Pinto). Contribution to the Corpus of the Roman mosaics of Conuentus Bracaraugustanus:.../ Conuentus Bracaraugustanus Roma Mozaikleri Korpusuna Katki: 167

Figure 10 Reconstitution of the mosaic pattern of the *cubiculum* (M. Pinto 2008: 38-39) (©Mendes Pinto. Design by José Ribeiro, Archaeology Office of Felgueiras Municipality). flanked by 8 rectangles perpendicular to the diagonals and to the medians, of 8 lateral half-stars of eight lozenges, contiguous by the point to each other and to the central octagon and set around the rectangles, forming triangles laterally and in the corners and squares on the diagonals (Décor II: pl. 374c, 394a). On this mosaic, only 3 lozenges of half-stars are visible. Each lozenge encloses another lozenge (Figs. 10-11).





The frame of the carpet is a simple guilloche followed, on the outside, by a band of chessboard with three squares on two opposite sides and with two squares on the entrance to the room and on its opposite side. A meander of two swastikas and multiple returns delineates the threshold of the entrance to the room.

The connection band to the smaller carpet, underlined by a small step, presents a pattern of two rows of tangent and linked swastika-*peltae* wheels with a central Salomon knot, alternately reversed (Décor I: pl. 57g; Viegas et al. 1993: 70) (Fig. 12).

The smaller carpet, corresponding to the area of the *lectus*, presents a diagonal grid. This smaller carpet is also framed by a band of chessboard, with four squares on the smaller sides and two squares on the larger.

On the main carpet, the squares that surround the star would be filled with a Solomon knot and square with loops, interlooped (Décor II: pl. 43) which alternated with a Solomon knot. The rectangles that flank the octagon are interior framed by a polychrome simple meander with a simple guilloche, closed, in the centre. The squares from the grid would be decorated with small vegetal and/or geometric motifs.

In the Roman Portuguese mosaics, the mosaic floor whose compositional pattern comes closer to the pattern from the main carpet of the mosaic of Sendim is the one from the *Villa* of Cerro da Vila, Quarteira, Faro, from the so designated "Casa pequena" (small House), dated from the middle of the 3rd century (Corpus Portugal II: 464-469, mosaic n. 81). This one also presents a central octagon with a star of 8 lozenges and 4 rectangles perpendicular to the medians. However, this mosaic is more complete than the one from Sendim since the

Figure 11

Reconstitution in colour of the mosaic pattern of the *cubiculum* (©Mendes Pinto. Design José Ribeiro, Archaeology Office of Felgueiras Municipality). Contribution to the Corpus of the Roman mosaics of Conuentus Bracaraugustanus:.../ Conuentus Bracaraugustanus Roma Mozaikleri Korpusuna Katki:... 169

Figure 12

Detail of the reconstitution in colour of the mosaic pattern: swastika-peltae with a central knot (©Mendes Pinto. Design José Ribeiro, Archaeology Office of Felgueiras Municipality).



rectangles are surrounded by lozenges tangent to others, thus forming half-stars of 4 lozenges, with the corners of the carpet filled by two of those lozenges and a square on the diagonal. As in the *Villa* of Sendim, the squares are filled with Salomon knots and the rectangles have simple guilloches, closed.

For the centralized composition from the floor of the "Casa pequena" (small House) of Cerro da Vila, Cristina Oliveira finds several parallels outside Portuguese territory, among which a mosaic from Vienne, dating from the end of the 2nd century, beginning of the 3rd century, with enclosed lozenges and Solomon knots on the squares (Recueil Gaule III, 2: 70-72, n. 265, est. XXI) and in north-African mosaics, particularly in a mosaic from Thysdrus (Foucher 1960: 21 n. 14 est. VI f.), also with enclosed lozenges and closed guilloches on the rectangles, whose dating, based on the archaeological data, points out to the first decades of the 3rd century (Corpus Portugal II: 467).

The same author refers another mosaic floor which is stylistically very similar to the above mentioned mosaic of Cerro da Vila, in the *Villa* of Milreu, Estói, Faro. It is also a *cubiculum* in which the *lectus* area presents two octagons starred by squares and adjacent lozenges, forming lozenges and triangles. The main carpet displays a centralised composition with an octagon starred by rectangles and squares alternately tangent. The rectangles are also filled by a closed guilloche. The floor is dated from the late 3rd century (Corpus Portugal II: 331-336, mosaic n. 52).

Another parallel with the composition of the main carpet of the Sendim mosaic can be established with the main carpet of a *cubiculum* (B22) of the "House of the Skeletons", in *Conimbriga*, which displays a centralised composition with an octagon flanked by rectangles surrounded by lozenges, forming half-stars

of 8 lozenges. However, the filling of the central octagon is different and more complex as well as the geometric figures around, although the rectangles present on the central area a closed guilloche and the squares are filled with interlaced bands. The *lectus* area, as should have been the one of the Sendim mosaic, is decorated with an oblique grid. This mosaic is dated from the $3^{rd} - 4^{th}$ century (Correia 2003; Oliveira 2005: 46 mosaic n. 27). The two other floors with patterns centralised by stars of two interlaced squares, as the one inscribed on the octagon of the above mentioned mosaic, also come from Conímbriga. These two mosaics are displayed at the entrance of the Ruins, having been dated from the end of the 2^{nd} century (Oleiro 1973: 92, 110 est. I-III; IV; V).

In relation to the star of 8 lozenges motif, which from the middle of the 1st century BC is seen in mosaics from the Italian peninsula, particularly in Pompeii, it is possible to verify that it had a wide geographical spread and longevity in the Roman mosaic, being preferentially used on surface compositions. It is relevant to note that the eight-pointed star and the star of 8 lozenges as an isolated centralised motif, as well as the orthogonal compositions of stars of 8 lozenges forming large squares and small pointed squares, are registered on the pictorial decoration of flat and domed ceilings in the Pompeiian painting of the 2nd and 3rd Styles (Barbet 1985: 87 fig. 52; 140-146 fig. 88). Many of the compositions, either centralised or orthogonal, used in the decoration of the floor mosaics, seem to reflect the ones used on the ceilings, being difficult to chronologically determine which preceded the other.

In Portuguese mosaics, especially those from *Villae* that flourished from the 3rd century onwards, floors with orthogonal compositions based on stars of 8 lozenges are very common. In eastern Algarve, in addition to the previously mentioned mosaics with compositions centralised by octagons, examples include the mosaics of Milreu (Corpus Portugal II: 238-240, mosaic n. 31, dated from the first half of the 3rd century; mosaic n. 46, composition centralised by square, determined by 4 stars of 8 lozenges, p.301-305, dated from the beginning of the 3rd century; mosaic n. 58, orthogonal composition of starred octagons, p. 352-355; mosaic n. 67, p. 413-417, dated from the end of the 2nd century, beginning of the 3rd century).

In western Algarve, the *Villa* of Abicada, Lagos, Vila do Bispo, also displays stars of 8 lozenges on some of its floors. These floors may be situated in the same period of time as the ones from Milreu due to the existing stylistic parallels (Corpus Portugal II: 303).

In Alter do Chão, Portalegre, in the so-called "Medusa's House" it is also possible to observe two stars of 8 lozenges and half-stars of 4 lozenges, on the complex and filled geometric composition of the carpet at the entrance of the *triclinium*, with a figurative panel on the main carpet. The geometric mosaics of this *Villa* date from the 3rd-4th centuries, with the figurative panel of the *triclinium* dating from the 4th century (Caetano -Mourão 2011: 207; António 2015: 4, 48 fig. 13).

In *Villa* Cardílio, Torres Novas, several floors display mosaics with different compositions based on the stars of lozenges, among them the mosaic from room G, dated from the middle of the 4^{th} century (Duran Kremer 2008: 75).

In the *Villa* of Coriscada, Vale do Mouro, Meda, the polychrome mosaic carpet of two L-shaped corridors presents an orthogonal composition of stars of 8 loz-enges, with enclosed lozenges (Légier 2015: 191-192 fig. 8).

In the urban context of Conímbriga, in the triclinium (C20) of the "House of

Cantaber", on a bicolour mosaic dated from the 2nd-3rd century, the star of 8 lozenges appears as an isolated motif decorating the squares of the outside band, alternating with another star of 8 lozenges surrounded by squares (Correia 2003; Oliveira 2005: 58 mosaic n. 40). The same isolated motifs, but in a polychrome version, are used on the squares of the outside band of the main carpet of the *triclinium* of the "House of the Fountains", in a mosaic dated from the last quarter of the 2nd century – first quarter of the 3rd century (Corpus Portugal I: 110-116, mosaic n.10, est. 39-43; 60.2; 68.5). Also in Conímbriga, but on the later mosaics from the "House of the Swastika Cross", dated from the 2nd half of the 3rd century (Correia 2003: 25), a composition with stars of 8 lozenges, with enclosed lozenges and Salomon knots on the squares, decorates the north wing (B 10 E) of the peristyle (Oliveira 2005: 32 mosaic n. 17.2).

In Setúbal, in Arronches Junqueiro Street, n. 75, the mosaic uncovered by the Archaeological Studies Centre of the Ethnography and Archaeology Museum of the District of Setúbal presents the same type of orthogonal composition with stars of 8 lozenges, with the enclosed lozenges, interlaced bands on the bigger squares and a closed guilloche on the rectangles. Its chronology probably locates it in the 3rd century, after the Severian Period, in a time of great economical relevance from *Caetobrica*/Setúbal (Silva -Soares - Wrench 2015: 103-104 fig. 5).

Only a few examples similar to the exterior frame of the Sendim mosaic, chessboard with black and white tesserae, are registered on Portuguese mosaics. The closest to the mosaic from Sendim is a mosaic from the Villa of Martim Gil, Leiria, entitled Orpheus II, probably from the 4th century (Moita 1951a: 132, 141), on which a chessboard frame with two rows surrounds the whole rectangular carpet and the interior figurative panel, two other rows of chessboard also surround the geometric figures of the surface composition; the other example is the one from the possible cubiculum of the northeast area (A41) of the "House of Fountains" in Conímbriga, dated from the 3rd quarter of the 2nd century - first quarter of the 3rd century (Corpus Portugal I: 134-137, n.13, est. 49 and 62.1; Oliveira 2005: 25 mosaic n. 13; Pessoa 2005: 377). Another later example of a chessboard frame is a mosaic from the ecclesia of Tongobriga (Freixo, Marco de Canaveses, Porto), dated from the 5th-6th century AD (Lima 2012: 36, 51 fig. 99). A small fragment of a mosaic that presents some squares of small dimensions corresponding to a chessboard done on black and white, possibly belonging to a frame of the same type, originates from Braga (Albano Belino Collection) and it is stored at the Archaeological Museum of the Morais Sarmento Society, in Guimarães. This mosaic is dated from the 4th century (Abraços 2005: Annex I, 52 File 38).

The majority of the mosaics presents this pattern covering relatively large surfaces or on panels that are, among other examples: the above mentioned *cubiculum* from the "House of Fountains" in Conímbriga, on the area destined for the *lectus*; one of the floors of a *domus* in Braga, preserved and exhibited *in situ* at the space-crypt of D. Diogo de Sousa Regional Archaeology Museum, in Braga, from the High-Imperial period (Abraços 2011: 827-831); a mosaic from Pedrogão, Póvoa de Cós, Alcobaça, dated from the 1st – 2nd centuries (Moita 1951b: 149 est. I-II), that according with the existing design, presents this pattern on the areas destined for the *lecti* of a *triclinium*.

Outside Portugal, the parallels for the bicolour chessboard pattern are countless and cover a very wide chronology from the West, mainly Hispanic, to the North of Africa. They are also applied on panels or on the entirety of the carpets, but their occurrence on rims or frames has several examples. Bairrão Oleiro (Corpus Portugal I: 135-136, notes 12, 17, 18, 22, 29, 31, 34, 47, 49) mentions them on mosaics from Vailly (France), Yvonand (Switzerland), Iuvavum (Austria), Ulpia Oescus (Bulgaria), Fishbourn (Great-Britain), dated from the $2^{nd} - 3^{rd}$ century, and on later mosaics from Bignor and Littlecote Park (Great-Britain), from the 4^{th} century. Also as a rim and a large outside frame, the chessboard pattern is used on the Hispanic mosaics from Villafranca, from the end of the 3^{rd} century, beginning of the 4^{th} (Corpus España VII: 79, n. 50, est. 57-58) and from Veja del Ciego (Asturias), from the 2^{nd} half of the 4^{th} century or first half of the 5^{th} century.

Regarding the connection band between the main and the smaller carpets of the *cubiculum* of Sendim, decorated with two rows of tangent and linked swastika*peltae* with a central knot, it should be mentioned that the repetition of the motif, filling large bands or panels, is used on Portuguese mosaics, like for example: in the *Villa* of Pisões, Beja, compartment 9, on a mosaic dated from the 1st half of the 4th century (Costa 1985: 121); on a mosaic from the *Villa* of Santiago da Guarda, Ansião, Leiria, whose mosaics date, *in genere*, from the 4th – 5th century (Pereira 2008: 174; Ribeiro 2015: 85); on the mosaic uncovered at the time of the archaeological intervention at the "Sommer House", in Lisbon, carried out by the team of archaeologists from NEOEPICA – this mosaic displays a different execution of the *peltae* motif than the one done on the mentioned mosaics, since the extremities are in volute (Ribeiro et al. 2017); on the Ulysses' mosaic from the *Villa* of Santa Vitória from Ameixial, Estremoz, a row of a linked swastika-*peltae* is used as a frame (Chaves 1938: 51 fig. 11e).

The motif used isolated appears on mosaics from Conímbriga, as on the mosaic from "The House of Cantaber", displayed at the entrance of the Ruins, dated from the end of the 2nd – 3rd century (Oleiro 1973: 76-92 mosaic n. 1) or on the mosaic from compartment A24 from the "House of Fountains", with a figure of Silenus on the central panel, filling, alternating with another motif, the octagons from the composition of one of the other panels. This mosaic was dated from the last quarter of the 2nd century – first quarter of the 3rd century (Corpus Portugal I: 98-103, est. 36 and 59. 2, mosaic n. 8; Oliveira 2005: 20 mosaic n. 8). According to Bairrão Oleiro (Corpus Portugal I: 90, n.16), the linked swastika-*peltae* motif was created in Italy in the 2nd century and was particularly used during the following two centuries, although there are later examples. Its geographic expansion beyond Italy occurs in Germany, England and the Iberian Peninsula, for example, in Mérida, on mosaics from the 3rd and 4th centuries (Corpus España I: 43, n. 34, est. 67; 32-33, n. 10, est. 21). In the North of Africa, the author refers the examples of El- Jem and Utica.

The comparative study of the area destined for the *lectus*, in the *cubiculum* of Sendim, is not viable due to the fact that the mosaic is almost completely damaged. The reconstitution done on the design, with a diagonal grid, is a very common decoration on less exposed areas of the floor. As mentioned before in relation to the composition centralised with an octagon of the main carpet, the *cubiculum* (B22) of the "House of Skeletons" presents this pattern on the smaller carpet.

The Occupation of the Villa – Chronology

So far, the archaeological excavations carried out have taken place on a platform that constituted an agricultural field surrounded by vine training systems. The general stratigraphy of the station demonstrates that the ruins had been abandoned for a long time. During this period, stones from its walls were stolen and used in the terraces and retaining walls throughout the valley below and in the construction of houses over the centuries.

The continuation of the archaeological excavations, especially below the floors, in its last phase of occupation (5th – 6th centuries), as well as in the foundation ditches of the walls, will provide information about the primitive plan and possible works that have occurred before the great transformations of the end of the 3rd century. At any rate, the occurrence of remains of *opus signinum* at a level below the floor of the *atrium* shows that the north-south corridor, which borders the peristyle to the west, also extended alongside the winter *triclinium* and was reduced during the works that were then carried out. These allowed the expansion of the *triclinium* and the installation of the *caldarium* of the *balnea* below the hypocaust.

Judging from the dating of the ceramic materials and coins from the periods of *Gallienus* and *Claudius* II uncovered in the foundation ditch of the north wall of the tank, the house underwent a major renovation in the end of the 3rd century (Mendes Pinto 2008: 42).

Behind the primitive *triclinium*, some *balnea* were included. The hypocaust belonging to this *balnea* is still visible, with its *praefurnium* where the fires were lit. These fires heated the atmosphere and the waters from the *caldarium* and possibly of the *tepidarium*. A big tank of cold water, built over an ancient *laconicum* from a primitive *balnea* (2nd century?), was situated next to the new thermal complex. This would enable the owners if not to have the pleasure of the cold bath, due to its shallow depth, at least to contemplate the movement of the fish in the water mirror, with a probable view over the Valley and the West.

The water for this tank came from a spring in the south, at the base of the *castrum*, entering in the housing complex through a pipe that supplied the kitchens and the *balnea*. From this same spring, until today, comes the irrigation water that traverses the small trench and proceeds to the neighbouring fields, surrounding the house to the south and west. It was here that the biggest level of destruction, affecting these ruins, probably occurred when, in the 20th century, the municipal road and the neighbouring houses were built.

These constructions greatly affected the architectural interpretation of the Roman *Villa*, because of the total destruction of the south front of the house, not allowing the detection of its entrance or the complete comprehension of the development of west *balnea*. Due to this, it is not possible to know if the house had a façade with some sort of portico or tower, as sometimes happened in the *Villa*-block type defined by Gorges (Gorges 1979: 150-151). The truth is that the local place names register in the vicinity the toponym "Tower". However, in all this area, traces of buildings of this type or written records that refer to it, especially on documentation from medieval times, are unknown. In the present state of the study, the archaeological record does not make it possible to clearly distinguish the transition between the Roman occupation and the Suevic period, since the traces of material culture remain virtually identical. As differentiating elements from the previous period, it is only possible to highlight the above mentioned introduction of grey ceramics, the use of DSP imitations, of P-shaped *fibulae* and of buckles with violin type bronze spikes.

Given the impossibility of more secure timelines due to the absence of reliable dating elements, the extension of the Villa's occupation should not be considered beyond the middle of the 6th century.

For the sake of prudence and due to the fact that the archaeological excavations

are not finished and its extension will most likely provide new data, the occurrence of the great fire will be set between Theodoric's raids, in 455-456, and the middle of the 6th century, especially in the area of the *triclinium* and in the area that separates the peristyle. This dating may also extend to the baths, although there, given the posterior falling of the *suspensura* of the hypocaust, the traces can be confused with the ashes and stones blackened by smoke, characteristic of this area. However, not all the building seems to have been affected. In the beginning of the 6th century, the house was still inhabited, with the occurrence of some repair works done with the help of poles to hold the ceilings and roofs, the reconstruction of walls, and the limitation of corridors and compartments.

From then on, the house fell into disrepair and was abandoned, leaving behind some potteries still intact. However, the splendour of the ruins made some of its rooms, despite the evident degradation, to be reoccupied over the following centuries. It is possible to highlight the emergence of ceramics that can be dated between the 13th century and the 16th century, as well as coins from the reigns of King D. Afonso V and D. Sebastião. During this period, the stones from its walls were looted to supply the surrounding constructions.

Final Considerations and Dating Proposal for the Mosaic of the *Cubiculum*

The *Villa* of Sendim integrates a set of four *Villae* in the municipality of Felgueiras in a total of 23 archaeological sites within the geographical area covered by the *Conuentus Bracaraugustanus*. All the interventions allowed the mapping of the remains and the collection of evidence. In addition to the sites with mosaics from the capital of the *Conuentus*, these also cover the surrounding area of Braga, radiating to the coastal area, Douro Valley and Galicia. Although the *pars urbana* and *balnea* of many of the mentioned *Villae* certainly had floors in *opus tessellatum*, the surviving evidence of their existence is very scarce.

Regarding the *Villa* of Sendim, the fragments of the mosaic that covered this *cubiculum* allowed for the reconstitution of the compositional patterns used in the main carpet, some of the filling motifs of some of the geometric figures of this composition and the reconstitution of the connection band between the main carpet and the smaller or *lectus* area.

The analysis of this mosaic, both the compositional pattern and the different motifs, refers to a mosaic repertoire of geometric nature, widespread throughout the Roman world, in late Antiquity, resulting from an intersection of influences that connected mosaics from the East Mediterranean, the North of Africa and the West. It was possible to observe that, regarding the use of the composition centralised with an octagon and the star of eight lozenges, the parallels found in Portugal mainly come from Villae located in the western (Abicada) and eastern (Cerro da Vila and Milreu) Algarve. It is important to highlight those connections between some mosaics from Braga and mosaics from Milreu are already known. Thus, the representations of aquatic fauna on the mosaic from the peristyle of the domus from the Santiago's Seminary, exhibited at the Pio XII Museum of Braga, have close parallels with the mosaics from that Villa (Abraços et al. 2017: 1093); on the mosaics of Milreu, the specific water markings of a V-shaped motif are similar to the ones of the mosaic of Braga, from the S. João do Souto Square, Santiago's Seminary, Cerca, and it is present on other mosaics from Gallaecia (Acuña Castroviejo 1974: 53ss; Balil 1975: 259 ss; Duran Kremer 1999: 509-516; Mourão 2008: 98; Abraços 2015: 483); also

the florets represented on the parietal mosaic of a tank with steps of the S. Paulo Square, Cividade, Braga (Cardoso da Saudade) are very similar to the tank of Milreu (Abraços 2015: 482-483 fig. 3).

Still regarding the parallels found for the centralised composition and the stars of 8 lozenges from the mosaic of Sendim, it was possible to ascertain that, despite the significant number of mosaics from Algarve, other examples come from different archaeological sites dispersed all over the Portuguese territory. A similar statement can be done regarding the linked swastika-*peltae*. The use of the chessboard pattern on the surrounding and relatively narrow band of the mosaic from Sendim seems to be less common on the set of Hispanic mosaics.

As it happens with the mosaics from *Bracara* Augusta, through the study that has been carried out of these, the mosaic from the *Villa* of Sendim presents the use of a generalised decorative grammar in the late mosaic art, possibly carried out by mosaicists of the region. The exchange of influences verified in the various testimonies of the material culture of the peninsular Northwest was certainly the result of the relationships that this region established with the South of Hispania, not only through the road *Emerita Olisipo-Bracara-Asturica*, but mainly through the Atlantic route, already in use during pre-Roman times (Balil 1975: 259).

The archaeological evidence mentioned above, relating to the period of development of the *pars urbana* of this *Villa*, from the end of the 3rd century, and through the stylistic and comparative analysis carried out, shows that the mosaic floor from this *cubiculum* may have been completed between the end of the 3rd century and the end of the 4th century.

Bibliography – Kaynaklar

Abraços 2005	M. de F. Abraços, Para a História da Conservação e Restauro do Mosaico Romano em Portugal, Tese de Doutoramento em Letras-História da Arte, Universidade de Lisboa, Faculdade de Letras, Departamento de História, Lisboa (3 volumes).
Abraços 2011	M. de F. Abraços, "Os mosaicos romanos de Bracara Augusta da colecção do Museu Regional de Arqueologia D. Diogo de Sousa, Braga", Actas do X Colóquio Mosaico Greco-Romano (AIEMA): O Mosaico Greco-Romano nos Centros e nas Periferias (Museu Monográfico de Conímbriga, 29 de Out. a 3 de Nov. 2005), Conímbriga, 827-835.
Abraços 2015	M. de F. Abraços, "Roman Mosaics of Bracara Augusta. Basins: Aspects of Iconography", XII Colloquio AIEMA (Venezia, 11-15 settembre 2012) ATTI, Verona, 481-484.
Abraços et al. 2017	M. de F. Abraços – L. Wrench – C. Mourão – F. Limão – J. T. Garcia, "O Corpus dos Mosaicos Romanos do Conuentus Bracaraugustanus", Arqueologia em Portugal 2017 – Estado da Questão (Coordenação editorial: José Morais Arnaud, Andrea Martins), Lisboa, 1109-1121.
Acuña Castroviejo 1974	F. Acuña Castroviejo, Mosaicos romanos de Hispania Citerior III. Conventus Bracarensis, Studia Archaeologica 31.
António 2015	J. António, "Mosaicos geométricos da Casa de Medusa", ABELTERIUM, Revista online de Arqueologia e História, Vol. II, Nº 1, 39-51.
Balil 1975	A. Balil, "Sobre los Mosaicos Romanos de Galicia: Identificación de un Taller Musivario", CMGR II (Vienne, 30 Août - 4 Septembre 1971), Paris, 259-263.
Barbet 1985	A. Barbet, La Peinture Murale Romaine. Les Styles Décoratifs Pompéiens, Paris.
Caetano - Mourão 2011	M. T. Caetano – C. Mourão, "A Portrait of Book XII of the Æneid: the Mosaic from the «House of the Medusa» (Alter do Chão, Portugal)", M. Şahin (ed.), 11 th International Colloquium on Ancient Mosaics (october 16 th -20 th , 2009), Bursa, Turkey, İstanbul, 205-223.
Centeno et al. 2014	R. Centeno – R. Morais – T. Soeiro, "A propósito da cerâmica cinzenta fina polida do Castro de Romariz (Santa Maria da Feira-Portugal)", As produções cerâmicas de imitação na Hispânia-II Congresso Internacional da SECAH-Ex Officina Hispana, Braga, 291-308.
Chaves 1938	L. Chaves, "Estudos lusitano-romanos. I. A 'villa' de Santa Vitória do Ameixial (Concelho de Estremoz). Escavações em 1915-1916", AP XXX, 14-117.
Corpus España I	A. Blanco Freijeiro (1978), Mosaicos Romanos de Mérida, Madrid, Instituto Español de Arqueologia "Rod- rigues Caro", CSIC.
Corpus España VII	J. M. Blázquez Martinez; M. A. Mesquiriz (1985), Mosaicos de Navarra, Madrid, Instituto Español de Arqueo- logia "Rodrigues Caro", CSIC.
Corpus Portugal I	João Manuel Bairrão Oleiro (1992), Corpus dos Mosaicos Romanos de Portugal: Conventus Scallabitanus, I, Conímbriga – Casa dos Repuxos, Conímbriga, IPM/MMC.
Corpus Portugal II	J. Lancha ; Cristina Oliveira (2013), Corpus dos Mosaicos Romanos de Portugal. II Conventus Pacensis. 2 Algarve Este, Faro, Universidade do Algarve.
Correia 2003	V. H. Correia, Mosaicos de Conímbriga (CD-Rom), Lisboa, ICAM, Ministério da Cultura.
Costa 1985	M. L. V. Costa, "Contribuição para o estudo de alguns dos mosaicos da Villa Romana de "Pisões", ArquivoBeja Vol. II, 2ª Série, Câmara Municipal de Beja (1983-1985), 95-135.
Décor I	C. Balmelle – M. Blanchard Lemée – J. Christophe – JP. Darmon – AM. Guimier Sorbets – H. Lavagne – R. Prudhomme – H. Stern, Le Décor Géométrique de la Mosaïque Romaine I, Paris, 1985.
Décor II	C. Balmelle – M. Blanchard Lemée – JP. Darmon – S. Gozlan – MP. Raynaud, Le Décor Géométrique de la Mosaïque Romaine II, Paris, 2002.
Delgado - Morais 2009	M. Delgado – R. Morais, Guia das Cerâmicas de Produção Local de Bracara Augusta, CITCEM – Centro de Investigação Transdisciplinar Cultura, Espaço e Memória, Porto.
Duran Kremer 1999	M. de J. Duran Kremer, "Contribuição para o estudo de alguns mosaicos romanos da Gallaecia e da Lusitania", Actas do V Congresso Internacional de Estúdios Galegos (8-11 de outubro de 1997), Vol. I, Universidade de Tréveris, 509-518.
Duran Kremer 2008	M. de J. Duran Kremer, "Mosaicos Geométricos de Villa Cardílio. Algumas considerações", O Mosaico na An- tiguidade Tardia, Revista de História da Arte, nº 6, Lisboa, Instituto de História da Arte, Faculdade de Ciências

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	Sociais e Humanas-UNL, 61-77.
Foucher 1960	L. Foucher, Inventaire des mosaïques, Feuille nº 57 de l'atlas archéologique, Sousse, Tunis, Imprimerie Officielle, Institut National d'Archéologie et d'Art.
Gorges 1979	JG. Gorges, Les villas hispano-romaines, Paris.
Légier 2015	M. Légier, "Les mosaïques de Coriscada, Vale de Mouro, Meda, Portugal", Actas do Encontro Portugal-Galiza. Mosaicos Romanos (6 e 7 de Julho de 2013), Rabaçal, APECMA/AIEMA, 187-194.
Lima 2012	A. M. de C. Lima, Os mosaicos da igreja de Santa Maria do Freixo e a ecclesia de Tongobriga, paróquia da diocese portucalense no século VI, Freixo, Direcção Regional de Cultura do Norte/Estação Arqueológica do Freixo.
Mendes Pinto 1995	J. M. S. Mendes Pinto, O povoamento da bacia superior do rio Sousa: da proto-história à romanização, in Tra- balhos de Antropologia e Etnografia, Vol. XXXVI - Fasc. 1 (Actas I Congresso de Arqueologia Peninsular, Vol. V), Porto.
Mendes Pinto 1999	J. M. S. Mendes Pinto, Villa Romana de Sendim, Felgueiras.
Mendes Pinto 2007	J. M. S. Mendes Pinto, Tesouros Monetários Baixo-Imperiais entre Douro, Ave e Tâmega, Anexos NVMMVS, nº 8, S.P.N., Porto
Mendes Pinto 2008	M. Mendes Pinto, Villa Romana de Sendim. Roteiro e Exposição Permanente, Felgueiras.
Moita 1951a	I. Moita, "O mosaico de Martim Gil", AP, n. s., I, Lisboa, 131-141.
Moita 1951b	I. Moita, "O mosaico luso-romano de Póvoa de Cós", AP, n. s., I, Lisboa, 143-149, ests. I e II.
Morais 2005	R. Morais, Autarcia e Comércio em Bracara Augusta. Contributo para o estudo económico da cidade no período Alto-Imperial, Unidade de Arqueologia da Universidade do Minho, Braga.
Mourão 2008	C. Mourão, MIRABILIA AQVARVM, Motivos Aquáticos em Mosaicos da Antiguidade no Território Português, Lisboa, EPAL.
Oleiro 1973	J. M. B. Oleiro, "Mosaicos de Conímbriga encontrados durante as sondagens de 1899", Conímbriga, 12, Coimbra, Universidade de Coimbra (Faculdade de Letras/Instituto de Arqueologia), 67-158.
Oliveira 2005	C. Oliveira, Mosaicos de Conímbriga. X Colóquio Internacional da Associação Internacional para o Estudo do Mosaico Antigo (AIEMA), Conímbriga.
Pereira 2008	R. M. Pereira, "Resultados dos Trabalhos Arqueológicos no Paço de Vasconcelos em Santiago da Guarda (Maio de 2002 a Julho de 2004)", Actas do IV Congresso de Arqueologia Peninsular: Hispânia Romana. Faro: ed. Centro de Estudos de Património-Universidade do Algarve: 171-181.
Pessoa 2005	M. Pessoa, "Contributo para o estudo dos mosaicos romanos no território das civitates de Aeminium e de Co- nimbriga, Portugal", RPortA 8, nº 2, 363-401.
Pinto 1934	R. de S. Pinto, "O Castro de Sendim, Felgueiras (Nota Preliminar)", Homenagem a Martins Sarmento (1833- 1933), Sociedade Martins Sarmento, Guimarãe, 376-380.
Recueil Gaule III, 2	J. Lancha, Recueil général des mosaïques de la Gaule : III, Narbonaise – 2, Paris, CNRS (Xème Supplément à Gallia), 1981.
Ribeiro 2015	L. C. Ribeiro, "Contributo para uma visão global dos pavimentos de mosaico da Villa romana de Santiago da Guarda, Ansião", Actas Encontro Portugal-Galiza. Mosaicos Romanos (6 e 7 de Julho de 2013), Rabaçal, APECMA/AIEMA.
Ribeiro et al. 2017	R. Á. Ribeiro - V. N. Vieira – P. Rebelo – N. Neto, "A Roman Mosaic Unearthed in Armazéns Sommer (Lisbon). Archaeology and Iconography", JMR 10, 335-346.
Silva - Soares - Wrench 2015	C. T. da Silva – J. Soares – L. Wrench, "Mosaicos Romanos de Setúbal – Exemplo da excelência da arte musiva urbana na periferia do mundo romano ocidental", in Actas do Encontro Portugal-Galiza. Mosaicos Romanos (6 e 7 de Julho de 2013), Rabaçal, APECMA/AIEMA, 92-105.
Viegas et al. 1993	C. Viegas - F. Abraços - M. Macedo, Dicionário de Motivos Geométricos no Mosaico Romano. Baseado em material seleccionado da obra Le Décor Géométrique de la Mosaïque Romaine, Conímbriga, Liga dos Amigos de Conímbriga.