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### TERRA SIGILLATA IMPORTS IN SALACIA (ALCÁCER DO SAL, PORTUGAL)

### Introduction

Alcácer do Sal is the Roman town of *Salacia*, located in the province of Lusitania, in the Sado estuary. (**fig. 1**)

Referring to the most important oppida along the today Portuguese coast, south from Olisipo (Lisbon), Pliny the Elder mentions, in its *Historia Naturalis*, *Salacia* (today Alcácer do Sal), *Mirobriga* (Chãos Salgados?), *Ossonoba* (Faro), *Balsa* (Torre de Ares-Tavira) and *Myrtilis* (Mértola). The geographic position of *Salacia Urbs Imperatoria*, in the Sado estuary, made it a strategic center both in the maritime and river bourn trade but also concerning the ancient road network.

Exploration of maritime resources was a reality and the Sado estuary landscape is marked by the presence of various amphorae kiln sites as well as sites related to the production of fish sauces of which the best known corresponds to the complex of Tróia, which is just about 45 km away from the Roman town of *Salacia*. The hinterland is also punctuated by the presence of *villae*, where agriculture would have been developed and cattle would have been raised.

Despite several archaeological works that have taken place, the information on the topography of the ancient town is very limited. The hill where the medieval castle was built must have been the location of the pre-Roman settlement and also the Roman town.

The terra sigillata studied was found in different areas – in the medieval Castle, the location of the Roman town and the *necropolis* area – and was compiled considering the informations that had already been published, as well as the unpublished data.

The area of the Senhor dos Mártires *necropolis* was first excavated in the end of the 19th century and is well known for the impressive series of Greek vases. Excavations took place in the area of the medieval Castle of Alcácer do Sal since the late seventies of the 20th century and were promoted by the Archaeological Museum of Setúbal. They have shown the site's wide chronological range from the Iron Ages until the Roman *Imperatoria Salacia*. Between 1993 and 1997 preventive archaeological works concentrated in the area of the 16th century Convent of Our Lady of Aracoelli due to its transformation into a pousada (inn). The monograph about these excavations hasn't been published yet, but parts of the structures identified

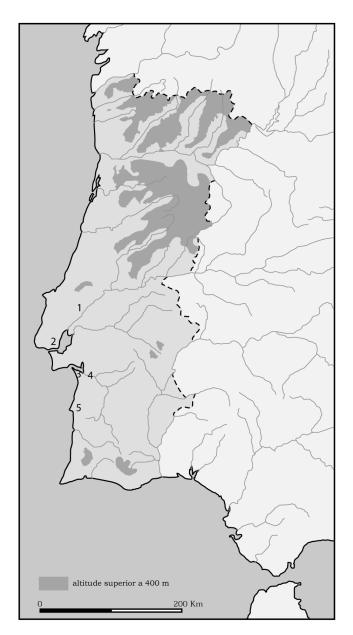


Fig. 1. Map of Portugal with the main sites mentioned in the text: 1 Santarém; 2 Lisbon; 3 Tróia; 4 Alcácer do Sal; 5 Miróbriga.

PLÍNIO IV,35,116; A. GUERRA, Plínio-o-Velho e a Lusitânia (Lisboa 1995).

<sup>&</sup>lt;sup>2</sup> Silva et al. 1980/81, 149–218.

	MNV	% MNV
Eastern Sigillata A	2	0.4
Italian type sigillata	293	62.7
South Gaulish sigillata	119	25.4
Hispanic sigillata	41	8.8
African Red Slip ware A	7	1.5
African Red Slip ware C	3	0.6
African Red Slip ware D	2	0.4
Late Hispanic Sigillata	1	0.2
Total	468	100

**Fig. 2.** Table with percentual distribution of terra sigillata from Alcácer do Sal (MNV).

have been preserved and can be seen in the crypt open to the public. Archaeological works undertaken by the municipality and directed by J. C. Faria also identified the possible area of the *forum* near the Santa Maria Church.<sup>3</sup>

### Methodology

Our contribution to the study of terra sigillata imports in Alcácer do Sal (Salacia) is based on the systematic bibliographic collection of all disperse references on the subject that are synthesized infra, and on the direct observation and handling of about 80% of the known terra sigillata from this town. The examination of the sigillata took place in the local archaeology center in Alcácer do Sal and also at the National Archaeology Museum (NAM) in Lisbon, where the material from the ancient excavations on the Roman (Azinhaga do Senhor dos Mártires) and Iron Age necropolis (Olival do Senhor dos Mártires) is deposited. At the local museum we were given the already selected collection of sigillata fragments while at the NAM we had access to the whole group of materials deposited there. All the information was compiled into a database allowing the quantification of 1370 fragments and 468 NMV of different categories of terra sigillata: Italian type sigillata (ITS); South Gaulish sigillata (SGS), Hispanic sigillata (HS). African Red Slip Ware A, C and D (ARSA, ARSC, ARSD), and also Late Hispanic sigillata (LHS).

Despite the different sampling conditions we agree that the systematic analysis of the terra sigillata assemblage is relevant for the understanding of the patterns and rhythms of imports to the town of *Salacia* and contributes to the knowledge of the Romanization process of the Sado valley.

## The study of the terra sigillata of Alcácer do Sal: an overview

First references to the terra sigillata from *Salacia* date back to the 19<sup>th</sup> century when the founder of the Archaeology National Museum (in Lisbon), J. Leite de Vasconcellos

collected a few fragments for the museum.<sup>4</sup> In his study of potters' stamps in terra sigillata, M. B. Oleiro included also six examples from Alcácer do Sal.<sup>5</sup>

In 1971, A. Alarcão published the state of the art in Italian type sigillata in Portugal collecting information from the local museums and defining the main pattern of imports of this type of sigillata to the region adding another eight stamps. It is interesting that precisely these 14 stamps, presented by A. Alarcão, are enlisted in the revised edition of OCK, concerning Alcácer do Sal.

Construction works undertook in the Castle to build the water deposit resulted in the removal of large quantities of soil without proper archaeological survey but it was possible to recover more than one thousand fragments of terra sigillata.<sup>7</sup> Although referring mainly to the potters' stamps, in that study the proportions of the different categories of terra sigillata reveal that 40% belong to the Hispanic productions.<sup>8</sup> Following the previous interventions, the local museum in Setúbal was responsible for the archaeological survey that took place in the Castle.<sup>9</sup> This excavations helped to emphasize the vast diachrony of the site dating back to the 7th-6th century BC, but the amount of terra sigillata recovered was not so large compared to what had been known previously. An important result was that the presence of ARS A (forms, H8A, 3B and 27) was then stated for the first time.<sup>10</sup>

Apart from other studies and the sporadic publishing of more potters' stamps from different areas of the town, <sup>11</sup> in 1985 the same author wrote a paper reflecting about the evolution of terra sigillata imports to Alcácer do Sal considering the site was the most relevant importation port of the western Iberian coast for Italian type sigillata of the earliest phases <sup>12</sup>. He also pointed to a relatively early decline of the town dated to the end of the Augustus reign, because the number of South Gaulish and Hispanic potters' stamps is much lower compared to the Italian ones. <sup>13</sup>

Since 1985 the publications of other sigillata fragments, mainly potters' stamps, have continued on an intermittent basis, as seen in 1987, with the presentation of another 37 stamps<sup>14</sup> and later with a few other examples collected at the west side of the Castle<sup>15</sup> and the Roman pottery from the S. Miguel area.<sup>16</sup>

J. C. FARIA, Alcácer do Sal ao tempo dos romanos (Lisboa 2002).

J. L. VASCONCELLOS, Excursão archeologica. Alcácer e arredores. Torrão. Alcáçovas. Evora e vizinhanças. Arqu. Português 1989, 107–109.

J. M. B. OLEIRO, Elementos para o estudo da «terra-sigillata» em. Portugal I. Marcas de Oleiro encontradas no País. In Revista de Guimarães, vol. LXI, n.º 1–2 (Guimarães 1951) 81–111.

A. M. Alarcão, A terra sigillata itálica em Portugal. In: Actas do II Congresso Nacional de Arqueologia, Coimbra, 28 de Setembro a 1 de Outobro 1970, vol. 2 (Coimbra 1971) 421–432.

<sup>&</sup>lt;sup>7</sup> L. F. Dias, As marcas de terra sigillata do castelo de Alcácer do Sal. Setúbal Arqu. 4, 1978, 145–154.

<sup>&</sup>lt;sup>8</sup> Ibid. 147.

SILVA ET. AL. 1980/81, 149–218.

<sup>&</sup>lt;sup>10</sup> Ibid. 192 Fig. 21,265–268.

A. M. D. Diogo, Mais algumas marcas de T. S. Itálica de Alcácer do Sal. Arqueologia 6, 1982, 82–86.

ID., Algumas notas sobre a terra sigillata em território português. Pyrenae 21, 1985, 141.

<sup>&</sup>lt;sup>13</sup> Ibid. 142

FARIA/FERREIRA/DIOGO 1987.

<sup>&</sup>lt;sup>15</sup> Sepúlveda/Faria/Faria 2000, 119–150.

<sup>16</sup> Sepúlveda/Ferreira/Mata 2008.

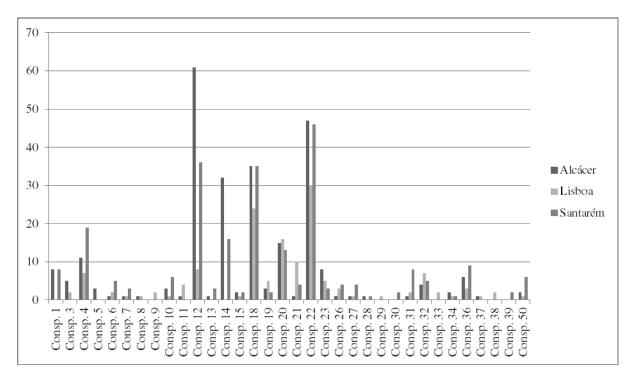


Fig. 3. Histogram with the distribution of forms of ITS in Alcácer do Sal comparing to Santarém and Lisbon.

# Terra sigillata from Alcácer do Sal: trends and pattern of imports

One of the first conclusions of this study was that most of the imports reached *Salacia* during the High Empire, but rare fragments of ARS D and late Hispanic sigillata testify a quite restricted occupation in the Late Roman period (**fig. 2**).

The presence of **Eastern sigillata A** (**ESA**) was now confirmed in Alcácer do Sal with few examples of the form Hayes 3 and a previously published fragment that should be classified as form Hayes 11<sup>17</sup> dated to the second half of the 1<sup>st</sup> century BC.<sup>18</sup> Apart from Santarém, where it was first identified, some other finding spots in southern Lusitana have been attributed lately to the distribution map of ESA in the West, e. g. Faro.<sup>19</sup>

As said before, considering the distribution of the different categories of sigillata it is clear that the most abundant is the **Italian type sigillata** (**ITS**), which represents 62.7% of the whole assemblage (**figs. 3–4**). This is quite a high percentage considering the other sites that can be compared to *Salacia*, either urban or rural. In fact the proportion of Italian sigillata known from western Lusitanian sites varies from 37.47% in the Roman town of Santarém to a mere 0.55% in the Roman *villa* at São Cucufate<sup>20</sup>.

Concerning ITS it is also possible to compare its import pattern and chronological distribution considering the plain forms and the potters' stamps with the data recovered in Lisbon (Praça da Figueira)<sup>21</sup> and in Santarém. A closer observation of the forms of ITS demonstrates that despite the Haltern 'service II' (represented by both Consp. 22 cup and Consp. 18 and 20 plates) being very abundant, the forms that belong to Haltern 'service I' (Consp. 12 and 14) are more frequent in Alcácer do Sal than in Lisbon or Santarém. This indicates clearly an earlier importation of this sigillata to the Sado valley, and particularly to the town of Salacia, when compared to the available data of other sites. Another feature that seem to differentiate this site from others is the quantity of decorated chalices/decorated forms that are more common in this assemblage than at the other sites mentioned. It must also be stressed that the ITS from Lisbon that has been studied corresponds to an area of the town, the necropolis in Praça da Figueira, which may not be representative for the earlier occupation of the town.

Potters' stamps provide useful information on the sources of supply of ITS to *Salacia*. The classification of the stamps according to OCK has demonstrated that Arezzo is the major production center although Pisa also presents significant percentages (**fig. 3–5**). Potters from the Po Valley, Pozzuoli and Central Italy are also represented. Most of the potters that we had the possibility to study had already been identified in *Salacia*. Among them there is a quite interesting potter's stamp where we read Communi/C. Mert, which we had problems to classify according to OCK. The closest example is OCK

<sup>17</sup> Sepúlveda/C. Faria/Faria 2000, 146 nr. 36

J. W. HAYES, Sigillate oriental. In: G. Pugliese-Carratelli (ed.), Atlante delle Forme Ceramiche II. Ceramica Fine Romana nel Bacino Mediterraneo (Tardo Ellenismo e Primo Impero). EAA (Roma 1985) 1–96

O. Viegas, A ocupação romana do Algarve – estudo do povoamento e economia do Algarve central e oriental no período romano. Estudos e Memórias 3 (Lisboa 2011)

J. ALARCÃO/R. ÉTIENNE/F. MAYET, Les Villas romaines de São Cucufate (Portugal) (Paris 1990)

R. DE A. M. B. DA SILVA, As "marcas de oleiro" em terra sigillata da Praça da Figueira: uma contribuição para o conhecimento da economia de Olisipo (séc. I a.C.-séc. II d.C.) (MA dissertation Univ. Minho, Braga 2005); C. M. S. BOLILA, A terra sigillata de tipo itálico da Praça da Figueira (Lisboa) (MA dissertiation Univ. Lisboa 2011).

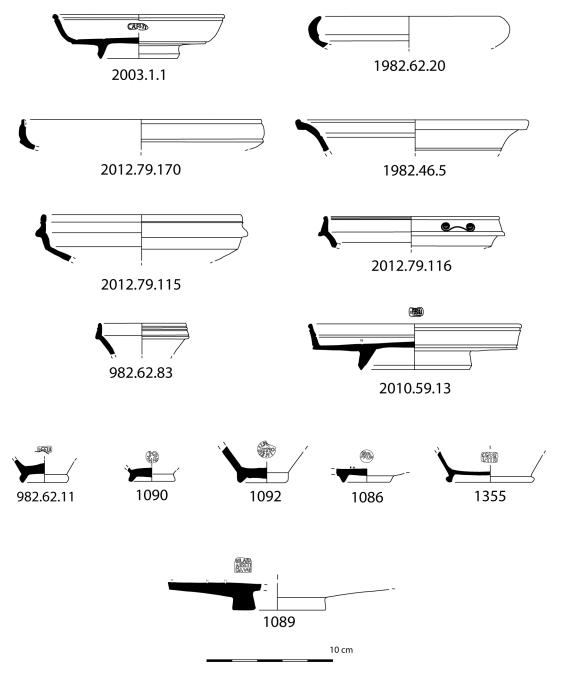


Fig. 4. Italian type sigillata from Alcácer do Sal.

603 of Communis that has only three pieces, all of them *in planta pedis*. We believe that this is the potter's stamp of the slave C. Mert of Communis and possibly this could be one of the first examples known.

According to our database there are five radial stamps, which is another relevant chronological element in favour of an earlier dating of the assemblage when compared with other towns where these stamps barely occur or are represented by only one stamp.

Late Italian sigillata imports had already been recognized in potters' stamps such as Sextus Murrius<sup>22</sup>, and C.P.P.<sup>23</sup> and

in a barbotine decorated fragment possibly form Consp. 36 or 43 in the assemblage now studied.

**South Gaulish (SG)** imports are quite well represented: 25.4% of the sigillata identified can be attributed to La Graufesenque. Most of the forms (87%) are the usual set of cup/plate (Drag. 24/25, Drag. 27, Drag. 15/17, Drag.18) (**fig. 6**). The fine quality of the "Glanztonfilm" on most of the examples, together with the presence of rare pieces of Drag. 35/36 seems to indicate that most of the Gaulish imports went to *Salacia* during the Claudian/Neronian period. Decorated forms are dominated by Drag 29 and 37 in equal quantities, but both the decorative motifs and the composition of the decorations, show a predominance of the earlier phases of the production of La Graufesenque.

<sup>&</sup>lt;sup>22</sup> Alarcão 1971 nr. 20

<sup>&</sup>lt;sup>23</sup> Ibid. nr. 38; Faria/Ferreira/Diogo 1987 nr. 14

Invent.	Potter's name	ОСК	Origin	Date	
Nr.					
1354	Sextus Annius	183.1	Arezzo	20 BC – AD 10	SEX
s/ nr.	Communis C. Mert ()	603	Po valley	30 AD +	COMMAD
1982.58.49	P. Cornelius (1)	623.3	Arezzo	5 BC – AD 40	2002
1090	P. Cornelius	624.52	Arezzo	5 BC – AD 40	
2010.59.13	P. Cornelius, slave Faustus	643.2	Arezzo	Date ?	POR
2003.1.1	Crestus	698.62	Pisa	10 BC – AD 30	CRESTO
1092	L. Fastidienus Optatus	810.1	?	AD 1 +	OPINI
1982.62.11	L. Gellius	879	Arezzo?	15 BC – AD 50	LGELL
1086	Heraclio	922.2	Central Italy	AD 1 +	(ACLIO
1091	Mahes (2) ?	1087.8	Pisa	5 BC – AD 20	MAKE
1088	Posidonius	1512.2	?	AD 30 +	POSD
1089	A. Sestius Dama, slave Hilarus	1951.2	Arezzo?	30 – 10 BC	HILARI ASESTI DA VAE
1347	L.Tettius Samia (1)	2109.4	Arezzo	20 BC 0150 AD 5	SANDA
1352	L.Titius	2203	Arezzo	BC 15 – AD 30	
1355	L.Titius, slave Gemellus	2220.2	Arezzo?	BC 15 – AD 5	CEVE L'TITI
1351	Xanthus (2)	2536.128	Pisa	BC 5 – AD 50	ELEY SI

Fig. 5. ITS potter's stamps from Alcácer do Sal (unpublished).

From the 119 pieces of South Gaulish sigillata only three are marbled (two of unidentified form and one Drag. 18). In the Roman town of Conimbriga<sup>24</sup> or in Santarém<sup>25</sup> also only few marbled sherds have been identified in the vast amount

of the South Gaulish terra sigillata imports. This is contrary to what I have recently observed in the Algarve Roman towns where marbled sigillata is much more frequent<sup>26</sup>. In

M. Delgado/ F. Mayet/ A.M. Alarcão, Les sigillées. In: J. Alarcão/R. Étienne (dir.) Fouilles de Conimbriga 4 (Paris 1975).

<sup>&</sup>lt;sup>25</sup> Viegas 2003.

EAD., Les sigillées du sud de la Gaule à Castro Marim et Faro (Algarve – Portugal). SFECAG Actes Congrés Saint-Romain-en-Gal (Marseille 2003) 641–646; EAD., Red in the west. Consumption patterns of gallo-roman sigillata in south-west Lusitania (Portugal). In: M. Fulford/E. Durham (eds.), Seeing Red – New economic and social perspectives on terra

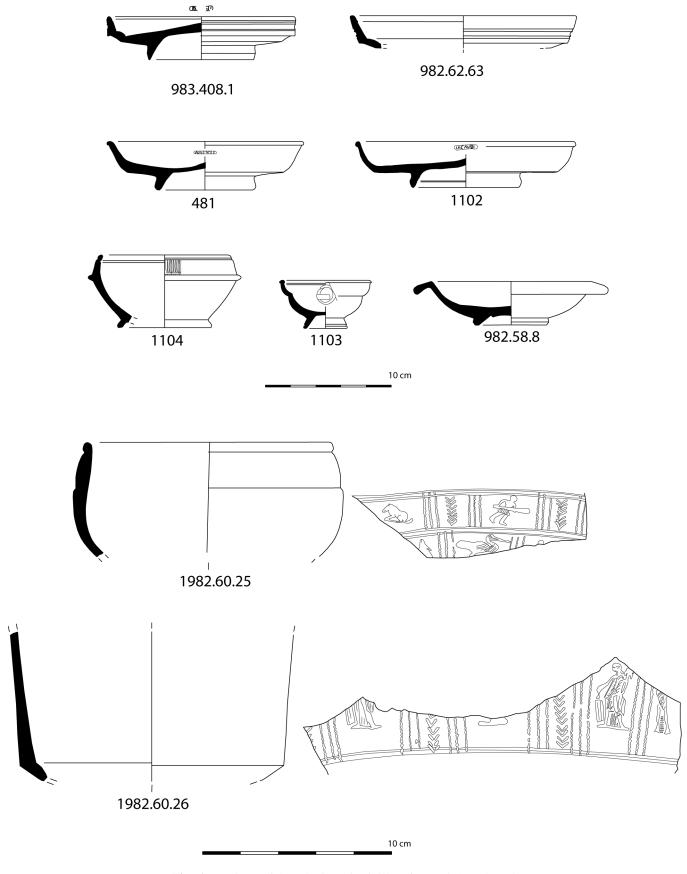


Fig. 6. South Gaulish and Hispanic sigillata from Alcácer do Sal.

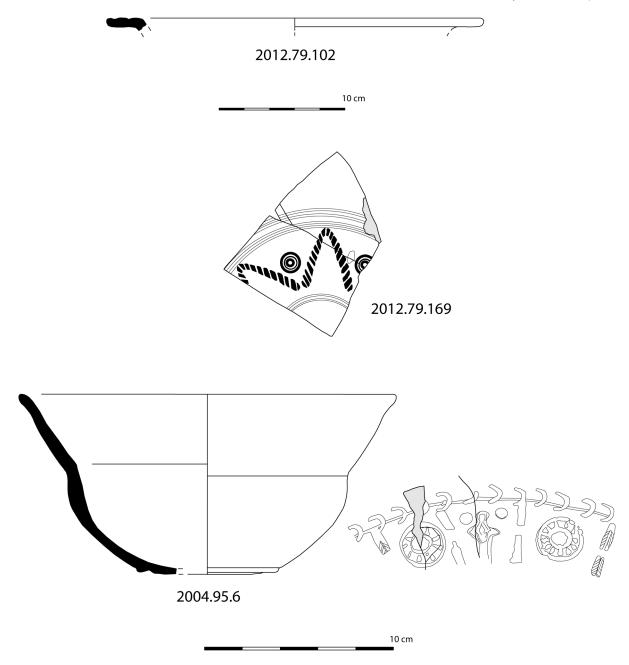


Fig. 7. ARS D and late Hispanic sigillata from Alcácer do Sal.

fact, resulting from these observations and considering that the manufacture of marbled sigillata occurred throughout the period of manufacture of La Graufesenque (from the Tiberian period until the first decades of the 2<sup>nd</sup> century)<sup>27</sup>, it is my opinion that these differences can be explained by the later chronology of the assemblages at the Algarve sites.

**Hispanic sigillata (HS)** is represented by Baetican, Andújar productions and those from the Tarraconensis, located in the Tricio region, and is 8.8% of the total of the materials. The most common form is the dish Drag. 15/17, followed by the

cup Drag. 27. The decorated form Drag. 37 is also represented and two specially well preserved pieces of Drag. 29 and 30 show decorative motifs that can be related to the Tricio (northern) Hispanic production center (**fig. 6**).

The so-called Peñaflor sigillata was also included in the category of Hispanic sigillata. In the material that we have compiled in the local deposit there weren't any examples of **Peñaflor Hispanic sigillata.** That might be explained by the fact that this category of sigillata is more difficult to identify due to its characteristics such as the clay based engobe (from orange to brownish in colour), that covers dishes and cups in a not very homogeneous way. This category of sigillata was identified in the Alcacer do Sal, specifically in the S. Miguel area and is attested just by two forms: a Martinez IB and a

sigillata. Internat. Conference Univ. Reading, 1-3 April 2011 (London 2013) 248–277.

M. GENIN, La sigillée marbrée des ateliers de la Graufesenque: État de la question. SFECAG Actes Congrés Pézenas (Marseille 2006) 231–243.

Martinez IIB<sup>28</sup>. Apart from other southern sites, this type of Hispanic sigillata, originated in the Baetican province, had already been identified in the region at the site of Abul (in the Sado margins and close to Alcácer) in a Augustan-Tiberian deposit, where the amphorae production was a reality from the Claudian period until the 5<sup>th</sup> century AD<sup>29</sup>. To the north, the distribution of this type of sigillata reaches Olisipo (Lisbon), although in reduced numbers<sup>30</sup>.

African red slip ware (ARS) is a minority among Alcácer do Sal sigillata, just represented by 2.5% of the total of the terra sigillata identified. The earliest forms of ARSA are the forms H. 3, 8 and 27 that we have already mentioned.<sup>31</sup> Latest examples of African imports recorded in Alcácer are dated to the beginning of the 5<sup>th</sup> century AD proved by the dish Hayes 59B (fig. 7) as well as a fragment decorated with chevron motifs and concentric circles that can be attributed to Hayes style A (ii) which is compatible with the chronology mentioned before.<sup>32</sup> Together with the exceptionally well-preserved Late Hispanic form Drag 37 (late variant) these are the last imports in Alcácer do Sal. The origin of such import must be found in the Douro or the Ebro Valley in the northern Iberian Peninsula (fig. 7).

#### Final remarks

The study of the whole assemblage of terra sigillata known from Alcácer do Sal shows a general decrease in terra sigillata imports in the late 1<sup>st</sup> century and in the 2<sup>nd</sup> century, which is a trend that can also be seen in other towns in Lusitania. Percentual distribution of terra sigillata in Alcácer do Sal when compared to Miróbriga<sup>33</sup>, Tróia<sup>34</sup> or Santarém<sup>35</sup> shows that this Roman town follows the general pattern observed in most of the sites in the region, reflecting their economic evolution. **Figure 8** shows the percentual distribution of terra sigillata in Alcácer, Santarém<sup>36</sup>, Miróbriga<sup>37</sup> and Tróia<sup>38</sup> with the slow rise of imports during the first decades of the 1<sup>st</sup> century (with the import of Italian type sigillata) and the strong presence of South Gaulish sigillata that represents the moment of the economic *floruit* that is generally associated with the second half of the 1<sup>st</sup> century.

However, as was mentioned before, in Alcácer do Sal and Santarém this *floruit* seems to have been reached earlier, because of the higher percentage of Italian type sigillata.

Comparing the trend and pattern of imports of Italian type sigillata we have also stressed that these are earlier than what was observed in Lisbon or Santarém.

The study of terra sigillata from Alcácer do Sal indicates that major transformations must have occurred in the Roman town from 2<sup>nd</sup> century onwards. Hispanic sigillata imports are only 8.8% of the whole sigillata. Late Roman imports from the 3<sup>rd</sup> to the 5<sup>th</sup> century (Late Hispanic and ARS) are quite rare although the surrounding region, both rural *villae* and amphorae kiln sites, shows great vitality in this period.

Generally, from the Flavian period onwards, the Roman towns show a decrease in the imports that corresponds to the arrival of the Hispanic and the beginning of African sigillata (ARS A). Despite this, the important fish sauce "industrial" center of Tróia shows a divergent evolution with ARS D being the most abundant category of sigillata. Both the data in the study by R. Étienne, Y. Makaroun and F. Mayet<sup>39</sup> and in the recent monograph by P. Magalhães<sup>40</sup> confirm this tendency showing that most of the imports took place in the early phases of the production from the first half/end of the 4th until the middle of the 5th century AD.

On the other hand, the consumption pattern of food stuff transported in amphora<sup>41</sup> from different areas in Alcácer do Sal castle shows a chronological distribution similar to what was observed with terra sigillata. From a total of 190 pieces, there are only few examples dated to the Roman Republican period and most of the amphora date to the 1<sup>st</sup> and 2<sup>nd</sup> centuries AD. There is a clear majority of pieces which were used to supply fish sauce products of local origin (Dressel 14) and a few examples from Baetica.

In the Late Roman period the occupation in the upper area of the medieval Castle must have been very restricted and one should think about the possibility that some functions of the Roman town could have been relocated to the area near the river port. Unfortunately this area hasn't been identified so far, which leaves us with the image of a nearly abandoned town in the end of  $2^{\rm nd}$  century.

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<sup>&</sup>lt;sup>28</sup> Sepúlveda/Ferreira/Mata 2008, 280–281 Est. IV nr. 10 e 7.

<sup>&</sup>lt;sup>29</sup> F. MAYET/C. T. DA SILVA, L'Atelier d'amphores d'Abul (Portugal). (Paris 2001) 26 Fig. 10,74–77.

<sup>&</sup>lt;sup>30</sup> I. S. A.A. RIBEIRO, A terra sigillata hispânica da Praça da Figueira (MA dissertation Univ. Lisboa 2010).

<sup>&</sup>lt;sup>31</sup> Silva et al. 1980/81, 192 Fig, 21.

<sup>32</sup> HAYES 1972, 219.

<sup>33</sup> QUARESMA 2012.

<sup>34</sup> ÉTIENNE/MAKAROUN/MAYET 1994; MAGALHÃES 2010.

<sup>35</sup> VIEGAS 2003.

<sup>36</sup> Ibid.

<sup>&</sup>lt;sup>37</sup> Quaresma 2012, 343 table 23.

Magalhães 2010; Étienne/Makaroun/Mayet 1994.

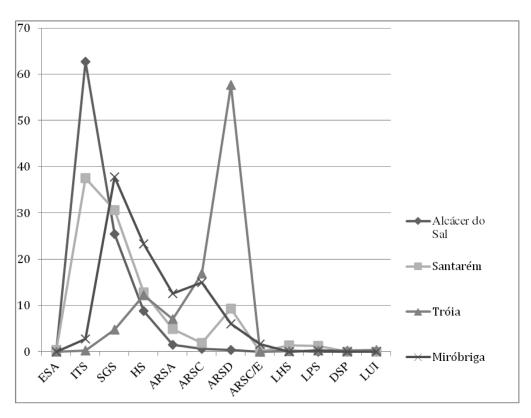
<sup>&</sup>lt;sup>39</sup> ÉTIENNE/MAKAROUN/MAYET 1994.

<sup>40</sup> Magalhães 2010.

SILVA ET AL. 1980/81; J. PIMENTA ET AL., Cerâmicas romanas do lado ocidental do castelo de Alcácer do Sal 4: ânforas de importação e de produção lusitana. Rev. Portuguesa Arqu. 9/2, 2006, 299–316.

	Alcácer do Sal	Santarém	Tróia	Miróbriga
ESA	0.4	0.37	0	0
ITS	62.7	37.47	0.3	2.7
SGS	25.4	30.64	4.8	37.76
TSH	8.8	12.83	12.2	23.3
ARSA	1.5	4.86	7.1	12.64
ARSC	0.6	1.87	16.9	14.94
ARSD	0.4	9.34	57.7	6.01
ARSC/E	0	0	0	1.57
LHS	0.2	1.37	0.1	0.04
LPS	0	1.25	0.3	0.24
DSP	0	0	0.2	0
LUIS	0	0	0.4	0

MNV				
(Minimum				
Number of				
Vessel)	468	803	2478	2476



**Fig. 8.** Percentual distribution of terra sigillata in Alcácer do Sal, Santarém, Miróbriga and Tróia. Total Minimum Number of Vessels (MNV) for each site is: Alcácer do Sal 468; Santarém 803; Tróia 2478; Miróbriga 2476.

### **Bibliography**

ALARCÃO 1971 A. M. ALARCÃO, A terra sigillata itálica em Portugal. In: Actas do II Congresso Nacional de Arqueo-

logia, Coimbra, 28 de Setembro a 1 de Outobro 1970, vol. 2 (Coimbra 1971) 421–432.

ÉTIENNE/MAKAROUN/MAYET 1994

Faria/Ferreira/Diogo 1987

R. ÉTIENNE/Y. MAKAROUN/F. MAYET, Un grand complexe industriel a Tróia (Portugal) (Paris 1994) J. C. L. Faria/ M. Ferreira/A. M. D. Diogo, Marcas da terra sigillata de Alcácer do Sal. Conimbriga

26, 1987, 61–76.

HAYES 1972 J. W. Hayes, Late Roman Pottery (London 1972).

MAGALHÃES 2010 A. P. MAGALHÃES, A terra sigillata da oficina de salga 1 de Tróia: contextos de escavações antigas

(1956–1961) e recentes (MA Dissertation Univ. Lisbon 2010)

OCK A. Oxé/H. Comfort/Ph. Kenrick, Corpus Vasorum Arretinorum. A catalogue of the signatures, shapes

and chronology of Italian sigillata2. Antiquitas 3,41 (Bonn 2000).

QUARESMA 2012 J. C. QUARESMA, Economia antiga a partir de um centro de consumo lusitano. Terra sigillata e cerâmica

africana de cozinha em Chãos Salgados (Mirobriga?). Estud. e Mem. 4 (Lisbon 2012).

Sepúlveda/Faria/Faria 2000 E. Sepúlveda/J. C. Faria/M. Faria, Cerâmicas romanas do lado ocidental do castelo de Alcácer do

Sal, 1: terra sigillata. Rev. Portuguesa Arqu. 3/2. 2000, 119–150.

Sepúlveda/Ferreira/Mata 2008 E. Sepúlveda/M. Ferreira/V. Mata, O espólio cerâmico romano do Alto de São Miguel (Alcácer do

Sal): intervenção arqueológica urbana de emergência. Rev. Portuguesa Arqu. 11/2, 2008, 271–230.

SILVA ET AL. 1980/81 C. T. SILVA ET AL., Escavações arqueológicas no Castelo de Alcácer do Sal (campanha de 1979). Setúbal

Arqu. 6-7, 1980-1981, 149-218.

VIEGAS 2003 C. VIEGAS, Terra sigillata da Alcáçova de Santarém – Economia, comércio e cerâmica. Trab. Arqu. 26

(Lisboa 2003).