

УДК 336.71(21.15.47)

**Dr. Almudena Ariza Armada**  
New York University  
Madrid, Spain

**Д-р Алмудена Аріса Армада**  
Нью-Йоркський університет  
Мадрид, Іспанія

almudena.ariza@nyu.edu

ORCID: 0000-0001-8996-388X

Researcher ID F-5190-2018

**THE ORIENT IN THE WEST. THE CONSOLIDATION OF THE  
UMAYYAD MONETARY SYSTEM IN AL-ANDALUS DURING THE  
2<sup>ND</sup>/8<sup>TH</sup> CENTURY**

**СХІД НА ЗАХОДІ. КОНСОЛІДАЦІЯ ГРОШОВОЇ СИСТЕМИ  
ОМЕЙЯДІВ В АЛЬ-АНДАЛУСІ У 2-8 СТОЛІТТІ**

***Abstract***

*During the 2<sup>nd</sup>/8<sup>th</sup> century, the consolidation of the Umayyad monetary system took place in al-Andalus. In this process, the influence of Eastern coinage played a decisive role and shows us the fact that al-Andalus was one more territory of Dār al-Islām. The first Andalusi issues, despite having their own local characteristics, were deeply influenced by Eastern elements because they were immersed in the policy of the Umayyad caliphate. After a transitional period, Andalusi dinars and dirhams were adjusted to ‘Abd al-Malik’s reform, becoming fully Arabized currencies. In this process, they were also adjusted to Eastern parameters. The coin hoards of this period show the importance of Eastern coins in the economy of al-Andalus because they were the main currency circulating in the territory. When the Umayyad caliphate of Damascus was replaced by the ‘Abbāsīd caliphate, and al-Andalus became an Independent Emirate from the ‘Abbāsīd caliphate in 138/756, the maintenance of Umayyad monetary features was the best expression of their dynastic vindication and rejection of the caliphate of Baghdad. The political break with the East was not only reflected in the issues but also in the monetary circulation, as is evidenced by coin hoards. Unlike the previous period, the main circulating currency was the Andalusi dirham, which is evidence of the monetary autonomy and consolidation of the Umayyad monetary system in al-Andalus.*

### **Keywords**

*Al-Andalus, Governors period, Independent Emirate, dinar, dirham, fals, Eastern influences, coin hoards.*

### **Анотація**

*Протягом 2–8 століття в Аль-Андалусі відбувалася консолідація грошової системи Омейядів. У цьому процесі вирішальну роль відіграв вплив східного карбування, що свідчить про те, що Аль-Андалус був ще однією територією Дар аль-Ісламу. Перші андалузські випуски, незважаючи на свої місцеві особливості, перебували під сильним впливом східних елементів, оскільки були занурені в політику Омейядського халіфату. Після перехідного періоду андалузські динари і дирхеми були пристосовані до реформи Абд аль-Маліка і стали повністю арабізованими валютами. У цьому процесі вони також були пристосовані до східних параметрів. Монетні скарби даного періоду засвідчують важливість східних монет в економіці Аль-Андалусу, оскільки вони були основною валютою, що циркулювала на цій території. Коли на зміну Омейядському халіфату в Дамаску прийшов Аббасидський халіфат, а Аль-Андалус став незалежним еміратом від Аббасидського халіфату в 138/756 р., збереження омейядських монетарних особливостей було найкращим вираженням їхнього династичного виправдання і неприйняття Багдадського халіфату. Політичний розрив зі Сходом позначився не лише на емісії, а й на грошовому обігу, про що свідчать монетні скарби. На відміну від попереднього періоду основною грошовою одиницею був андалузський дирхем, що свідчить про монетарну автономію та закріплення омейядської грошової системи в Аль-Андалусі.*

### **Ключові слова**

*Аль-Андалус, період правителів, Незалежний емірат, динар, дирхем, фальшивки, східні впливи, монетні скарби.*

### **Introduction**

The consolidation process of the Andalusī monetary system took place during the 2<sup>nd</sup>/8<sup>th</sup> century. Despite the fact that al-Andalus was part of *Dār al-Islām* and its dynamics, the Maghrebīan and Eastern influences on this process have not always been sufficiently highlighted. The objective of this paper is to provide evidence of these influences. The coin hoards and monetary circulation are also presented. It shows how al-Andalus was immersed in the economic system of the Umayyad caliphate at the beginning, and their monetary autonomy from the ‘Abbāsīd caliphate after their independence, according to their political situation. The coin hoards also show how to what extent al-Andalus participated in the economic networks of the 2<sup>nd</sup>/8<sup>th</sup> century.

## The Governors Period

### *Eastern influences and dynamics in implementing the Umayyad monetary system in al-Andalus*

It is known that the first Andalusī coins, the transitional dinars, were coined by the emir (*al-wālī*) of Maghreb Mūsā b. Nuṣayr, in the same currency process that he started in the Maghreb following the Byzantine monetary tradition of the mint of Cartago. A process that was not in accordance with the monetary reform carried out by the caliph ‘Abd al-Malik several years earlier, probably due to the autonomy that the caliph gave to the unique province that could mint gold coins, the distance of Damascus, and the attachment to the local monetary traditions<sup>1</sup>. However, in my opinion, that could also be due to other possible factors. On the one hand, in the same way that there was a gradual transition in the administration, from Greek to Arabic, there could have been a gradual evolution in the currency too, focused on favoring commercial relations<sup>2</sup> as the result of an agreement or a concession to the Berber population<sup>3</sup>. On the other hand, since Justinian II considered the Islamic reformed gold coins minted without respecting the imperial typology as a challenge to his claim to universal sovereignty, going so far as to break a truce in 692<sup>4</sup>, minting transitional coinage could have avoided a new confrontation with the Imperial power, in a time when the Arab army was confronting the Berbers<sup>5</sup>.

In any case, the first Andalusī coins didn’t adopt the autochthonous Visigoth system but followed the Maghrebian typology, probably because of the potential desires of the conquering army, mostly Berber, to be paid with the same currency they were already using, and also due to the decadence of the Visigoth coinage affected by the civil war of the Kingdom. But above all, because these issues were carried out by Mūsā b. Nuṣayr, probably with the same minters and itinerant mint that traveled with him from the Maghreb to al-Andalus and returned to North Africa, and it may have been the result of a process derived from the control carried out from the East<sup>6</sup>. The very fact that they were minted in a mobile mint reflects a practice that was already being carried out in the East<sup>7</sup>.

---

<sup>1</sup> *Les Trésors du Musée de la Monnaie* 2006: 58. It was even suggested that the Latin dinars could have responded to an independence attempt (Pliego Vázquez & Ibrāhīm 2018: 143; Ibrāhīm 2020 <https://www.youtube.com/watch?v=O4VndLYlnaY&t=2s> min. 21:09). However, it should be considered that the Andalusī ones follow the same types of the coins minted in the Maghreb, which I consider rules out this hypothesis. In my opinion, it is more probable that the minting of the Latin dinars responds to a transition process similar to the administration one.

<sup>2</sup> Abbot 1938.

<sup>3</sup> Ariza Armada 2017: 91-92.

<sup>4</sup> Cf. Lavoix 1887: XXVII-XVIII.

<sup>5</sup> Ariza Armada 2017: 91-92.

<sup>6</sup> Ariza Armada 2017: 103.

<sup>7</sup> There is evidence of mobile mints in the East simultaneously. Cf. Bates 1989: 89-111.

Additionally, we find other elements that show the Eastern influences or dynamics in implementing the Umayyad monetary system in al-Andalus. Firstly, the fact that, despite the Christian substratum of the conquered territories, oriental formulas were used, such as “*In nomine Domine*”, which is the literal translation of the Arabic expression “*bi-smi al-Rabbī*” (In the name of my Lord)<sup>8</sup>. Secondly, the Star symbol (Fig. 1). The Spanish numismatic historiography has traditionally considered that it represents the star Hesperus (the west star), which would give its name to the Iberian Peninsula, Hesperia<sup>9</sup>. However, we don’t find the star in the previous peninsular issues, but we find it in previous Umayyad ones from Great Syria, where the conquerors came from, which suggests that it is a symbol that has its roots in the East. It would be the representation of Siro, and like other symbols of similar characteristics, it must have had a religious connotation rather than a purely geographical or astronomical one<sup>10</sup>. In this way, it can be related to the likely pro-‘Alī tendencies of Mūsā b. Nuṣayr, to the link between the symbol and the pro-‘Alī environment, or to the *hadith* that identifies the stars as a protective element of the descendants of Fāṭima. So, the star would have come from the East, where the Sassanid monetary symbol was Islamized, maintaining its beneficial and protective value linked to power, now related to Shi’a beliefs or as a reference to Revelation or Paradise (if we make a Qur’anic or *hadith* reading of the symbol)<sup>11</sup>.



Fig. 1. Bilingual solidus/dinar. 98/716-717. 4.12 g, 19.5 mm. Inv. no. C 233. The David Collection.

Just like the people, their ideas and symbolic spaces traveled from the East and the North of Africa to al-Andalus. From the first moment, al-Andalus participated in the symbolic space of *Dār al-Islām*. The very fact that a new term, al-Andalus, was chosen to

<sup>8</sup> Ariza Armada 2016:140-141.

<sup>9</sup> Cf. Frochoso Sánchez 2015: 215-231.

<sup>10</sup> The possibility that, being the “canting arm” of al-Andalus, the star could be a symbol with a value beyond the pure geographical reference to the name Hesperia, given in Antiquity to the Iberian Peninsula, has been considered a “speculative opinion” (Pliego Vázquez & Ibrāhīm 2021: 6, note 30). However, research differentiates a justified belief from an opinion, and a reasoned argumentation turns an idea from speculation into a hypothesis. This hypothesis is based on the numismatic evidence and on the Arabic literary sources (see the references of the following note). Even if speaking about symbols we have to move into the realm of hypothesis, the general symbols shared by several religions and/or cultures have their own meaning in each of these religions or cultures.

<sup>11</sup> Cf. Ariza Armada 2016: 147-153; Ariza Armada, 2017-b: 71-72.

designate the Iberian Peninsula clearly shows that in the mentality of the conquerors there was no intention of continuity with regards to the previous symbolic spaces<sup>12</sup>.

Lastly, the fact that one type of these first Andalusī solidus/dinars may contain a legend in Hebrew (Fig. 2), as it has been sufficiently argued<sup>13</sup>, proves that, as in the East<sup>14</sup>, in al-Andalus the Jews played an active role in the minting of coins from the very beginning. The same happened in the Maghreb in the case of the Khārijites/Khawārij and the Idrīsids (Fig. 3)<sup>15</sup>. If the reading of these legends is correct, it will also support the idea that the Jews were on the same side with the Muslims in the conquest of the Peninsula, and that the news of the Arab, Jewish and Christian sources in this regard was not really a literary device (“tropo”) used by the chroniclers several centuries later, at a time of deep integration between Jews and Muslims, as some scholars have pointed out<sup>16</sup>.



National Archaeological Museum, Madrid  
(Ex. 2004/117/11)

Bode Museum, Berlin (Ex. 18236214)

**Fig. 2.** Andalusī solidus/dinars with Hebrew legends

<sup>12</sup> Viguera Molíns 2001: 183-204. T. Ibrāhīm has suggested that the new name, al-Andalus, may show a desire for independence on the part of ‘Abd al-Azīz, under whose emirate we find for the first time the name al-Andalus on a lead seal.

<sup>13</sup> Bar-Magen 2015; Bar-Magen & Zissu 2016. On the different historiographical interpretations of these specimens, see Ariza Armada 2019-a: 22-25.

<sup>14</sup> Textual sources mention the role that the Jews played in the first Islamic coinages, such as the case of Sumayr (For more information on this Jewish moneyer who minted the first dirhams on behalf of the Umayyad caliph ‘Abd al-Malik Ibn Marwān, see Eustache 1968: 80 and Wasserstein 2014). Moreover, coinciding with the return and consolidation of the Jewish population in Palestine, *fulūs* were coined with symbols that were previously Hebrew monetary symbols. Taking this into account, the fact that some of them have an exclusively Jewish symbolic value, and that the *fulūs* were not a canonical currency, it could as well have been a concession of the Muslim authorities to the Jewish community. A type of concession that they had already received in previous times (Cf. Ariza Armada 2019-b).

<sup>15</sup> For the case of the Khārijites/Khawārij eg. see the types of Eustache 72, 75,76; for this of the Idrīsids eg. Eustache 262, 423 (Eustache 1970-1971).

<sup>16</sup> A recent example: Catlos 2018: 39.



Reverse of a Khārijit dirham with the name *Ya‘aqob*. Mint of Tudga. Eustache 75, 76      Obverse of a Idrīsīd dirham with *Shin*. Mint of Īkam. Eustache 423

**Fig. 3.** North African dirhams with Hebrew legends

Taking into account that the solidus/dinars were minted for the payment of troops and taxes, these coins show the participation of the Jews in the conquest and in the incipient fiscal system. But, they also allow us to consider to what extent they prove the existence of the already existing Jewish commercial networks that favored or allowed this type of coinage, as well as to what extent the existence of these gold coins could have favored the development of commercial networks of which we have no evidence from textual sources until the beginning of the 3<sup>rd</sup>/9<sup>th</sup> century.

*From the bilingual dinars to the reformed coinages: Eastern influences, Arabization and Islamization*

In the year 98/716-717, the first bilingual dinar was coined, some months later than in the Maghreb<sup>17</sup>, as a result of the same monetary reform implemented by the Damascus caliph Sulaymān b. ‘Abd al-Malik and coinciding in time with the establishment of the capital of al-Andalus in Cordoba by the governor al-Ḥurr<sup>18</sup>. Despite using the same metrology, type of legends and epigraphic characteristics of the North African coins, the Andalusī ones had their own and distinct typology in which we find the prophetic mission of Muḥammad and the same name of *al-Andalus* for the first time in an Andalusī coin<sup>19</sup>.

<sup>17</sup> We know bilingual Maghrebī dinars of the years 97/715-716, 98/716-717 and 99/717-718. The chronological difference between the first Maghrebī dinar and the Andalusī one must have been, probably, of very few months, the necessary ones to transfer the caliphate order and implement it in each of the territories. Even so, we should not rule out the possibility that the minting began in both territories in the same year, although there are no known specimens to prove it to date. It coincided with the appearance of the first Maghrebī dirhams and other monetary innovations which were introduced during the caliphate of Sulaymān b. ‘Abd al-Malik, so it must have been carried out with the explicit approval or order from the caliph, as part of a unique reforming act (Cf. Ariza Armada 2016: 142).

<sup>18</sup> Taking into account that bilingual dinars had already been minted a year earlier in the Maghreb, probably the introduction in al-Andalus of the monetary reform was not a direct consequence of the setting of the capital in Cordoba, although the stability that this granted could facilitate the process, but both must have responded to the mission of political and administrative control of the territory carried out by al-Ḥurr, following the Eastern policy.

<sup>19</sup> In Ariza Armada 2016:153, the existence of twenty-four bilingual dinars preserved was indicated. Doubts about the authenticity of one dinar preserved in the National Archaeological Museum of Madrid (MAN 2004/117/16) have been raised, with caution, because of its epigraphic peculiarities (Ibrāhīm & Gaspariño 2020: 24-25). Peculiarities

Like the designation of the emirs, the bilingual dinars answer to the Eastern policies of the caliph of Damascus. The very fact of striking bilingual coins should be considered another element of orientalism in the Andalusī coinage.

Even though the establishment of the mint provided stability and favored the economic and administrative control of the territory by the governors, and the Arabic legends evidence the consolidation of the Arabic language in the administration of the territory, we have to wait until the years 102/720-721 and 103/721-722 to find in al-Andalus the introduction of the monetary reform of ‘Abd al-Malik in dinars and dirhams respectively. In addition to fiscal factors, other influences may have played a role, such as the binomial Arabization-Islamization, the millennialism and messianism of the time, and the reputed piety of the caliph ‘Umar II<sup>20</sup>.

However, we don’t have an explanation as to why the Andalusī and Maghrebīan dinars (until the year 114/732-733 when the North African dinars took the typology of the Eastern ones) don’t correspond to the model of the dinars minted at that time in the East, but they follow the typology of the dinar fractions (Fig. 4, 5). Thus, also in this process, we find the interrelation with the Maghrebīan currency since both of them also share the feature of having the same typology for the dinars and their fractions. All of this is evidence that both territories, al-Andalus and Ifrīqīya, must have had a different status in the monetary policy of the Umayyad caliphate, perhaps because the conquest of both was not yet consolidated. Related to this is the fact that both territories are the only ones whose mints are not named after a city but after a territory, *al-Andalus* and *Afrik* (Ifrīqīya). Although we don’t have a certain explanation in this regard, perhaps the Maghrebīan coins, followed later by the Andalusī ones, were influenced by the fact that the mint of the previous North African Byzantine coins didn’t use a local toponym as mint name, but the mint mark of Constantinople (CONOB)<sup>21</sup>.



1 dinar. Al-Andalus. 4.34 g, 20 mm. Tonegawa Collection

---

for which it was chosen to illustrate Ariza Armada 2017-b: 71, Fig. 2. If a metallographic study demonstrates that this specimen is a counterfeit, the bilingual dinars preserved in the studied collections would be only twenty-three.

<sup>20</sup> Ariza Armada 2017-a: 108.

<sup>21</sup> Ariza Armada 2017-a: 100-101.



1/3 dinar. Al-Andalus. 1.44 g, 14 mm. A.H.  
Baldwin & Sons Ltd Islamic Coin Auction  
27, 10 December 2014



1/2 dinar. Al-Andalus. 2.16 g, 15 mm.  
Tonegawa Collection

**Fig. 4.** Dinar and fractions of dinar from al-Andalus, year 102/720-721



**Fig. 5.** Eastern 1/2-Dinar/Nisf, without mint name 101 H. 2.07g. Baldwin Lot 12

However, the dirhams were like the eastern ones: their only difference is the name of the mint, which is *al-Andalus* (Fig. 6). We know dirhams were struck between 103/721-722 and 136/753-754, which proves a regular emission of silver coins until the year 125/742-743, and after this date, the production must have been irregular, as only a few specimens are known from isolated years.





**Fig.6.** Dirham, Al-Andalus, 111/729-730. 2.94 g, 28 mm. Tonegawa Collection

Regarding the *fulūs*, as in the rest of the Empire where their production was delegated to local authorities and, possibly, to private individuals as well<sup>22</sup>, in al-Andalus, they were likewise decentralized. The *fulūs* are linked to different *ajnād* that were settled in the peninsula and would mint the *fulūs* for their self-supply or even, as it has recently been suggested, for the payment of community alms (as some Maghrebian *fulūs* seem to show)<sup>23</sup> (Fig. 7). Following the Eastern dynamics, some *fulūs* were engraved with some symbols and figurative representations, which, as in the case of the star, should be linked to the oriental context rather than to the local tradition<sup>24</sup> (Fig. 8). Nevertheless, the majority of the *fulūs* are the ones that bear only the *shahāda*<sup>25</sup>. Sometimes, the *fulūs* were coined on top of other existing *fulūs* or Late Roman bronze ones (Fig. 9)<sup>26</sup>. This method was carried out both in al-Andalus and in the territories taken by the Muslims in the South of France<sup>27</sup>.

---

<sup>22</sup> Heidemann 2011-a: 658.

<sup>23</sup> Pérez Sánchez, Francés Vañó & Rodríguez Pérez 2013.

<sup>24</sup> These are stars, hexagrams and pentagrams, lunar crescents, fish, eagles, spikes, and busts. With the exception of the latter, related to coins of Sexi or Carmo (Balaguer 1988; Rodríguez Pérez 2005: 28), or with small bronzes supposedly Visigothic (Fontenla 2002: 35-37), which could be linked to the symbolism of power, all the other monetary representations seems to be symbols of a beneficial, magical-spiritual nature, linked to protection, fertility and prosperity (Ariza Armada 2001: 29-30; Ariza Armada 2014: 186). Regarding the fish symbol, see Ariza Armada 2004: 214-220.

<sup>25</sup> Parvérie 2014. For the different typologies of Andalusí *fulūs*, see Frochoso Sánchez 2001.

<sup>26</sup> Pérez Sánchez, Francés Vañó & Rodríguez Pérez 2013: 138. Martín Escudero 2013: 315-317.

<sup>27</sup> As the archaeological find of Ruscino attests: a *fals* on a coin of Maxentius struck notably in Arles (Parvérie 2014: 82- 83).



**Fig. 7.** *Fulūs* with legends related to the *Qur'ān* 2:261-262, as proposed by Pérez Sánchez, Francés Vañó & Rodríguez Pérez 2013: 137, 140.



*Andalusī fals*

*Baysan fals (jund al-Urdunn)*

**Fig. 8.** *Fulūs* with fish



**Fig. 9.** *Fals* overstrike on a Late Roman *follis*. Private collection.

### *Coin Hoards and Monetary Circulation*

The coin hoards of this period are characterized by the monometallism of silver<sup>28</sup>, which proves a limited economic use of the Andalusī coins, which should have been used almost only for the payment of the troops (*ajṅād*) and the maintenance of the tax system. To date, we know eight published Peninsular coin hoards: Alcaudete/Luque (Cordoba),

<sup>28</sup> We only know two cases of transitional dinar finds with archaeological context: Ruscino and Tolmo de Minateda. Regarding the findings of *fulūs* cf. Doménech Belda 1994; Rodríguez Palomo & Martín Escudero 2022.

Baena (Cordoba), Montillana/Iznalloz (Granada), Carmona (Seville), Alicante (Alicante), Yecla (Murcia), Azanuy (Huesca) and Garraf (Barcelona)<sup>29</sup>. Three of them only have oriental dirhams (Alcaudete/Luque, Yecla, and Azanuy). Dirhams minted in forty-seven Eastern mints (45.19% of the Umayyad mints) circulated in al-Andalus. Of these, those of Wāsiṭ and Dimashq are the most present in the finds. These coin hoards show the predominance of the Eastern dirhams in the monetary circulation in al-Andalus versus the Andalusī ones. It has been suggested that these coins arrived in the Peninsula due to the distribution of a common pool of currency collected by the caliph from the various territories<sup>30</sup>. However, it seems more likely that the coins came to al-Andalus with the Syrian troops (*ajnād*)<sup>31</sup>.

In any case, the abundant presence of Eastern coins shows how al-Andalus was immersed in the economic system of the Umayyad caliphate. Furthermore, metallographic studies show that the fineness of the Andalusī dirhams, which reached 98%, remained stable and in line with the fineness of the issues of other Umayyad mints<sup>32</sup>. Nevertheless, until now, we don't know the role of the Andalusī coinage in the global Umayyad economy. Despite its geographic dispersion, its limited presence in the finds beyond the al-Andalus borders (Fig. 10) seems to indicate that the circulation of the Andalusian coinage outside the Iberian Peninsula did not have a significant weight<sup>33</sup>.

Volubilis (Morocco) → 2,59% (6 dirhams)
Fez (Morocco) → ?
Cizre (Turkey) → 0.42% (4 dirhams)
Denizbaji (Turkey) → 0.079% (2 dirhams)
Damasco (Syria) → 1.59% (38 dirhams)
Qamisliyya (Syria) → 0.42% (1 dirham)
Ma'arra (Syria) → 0.66 % (1 dirham)
Kufah (Iran) → 0.56% (1 dirham)
Rayy (Teheran, Iran) → 0.12% (2 dirhams)
Apeni (Georgia) → 0.25% (1 dirham)
Kavshiri (Georgia) → 2.63% (1 dirham)

<sup>29</sup> Regarding these hoards, see the global study of Martín Escudero 2005: 45-54.

<sup>30</sup> Morgenstern 1980: 270.

<sup>31</sup> Cano Ávila 1990; Martín Escudero 2005:77.

<sup>32</sup> Bates 1992: 288; Canto García & Ibrāhīm 2004: 40.

<sup>33</sup> The presence of Andalusian coins is more scarce the farther the coin hoard is from the Peninsula. These coins could have arrived in the East by the return of fighters or by the 1/5 delivered to the caliph (Martín Escudero 2005: 61-62). Regarding the presence of Andalusī coins in Eastern findings, basic references are Noonan 1980 & 1989 and Barceló 1983.

Pshaveli (Georgia)→ 0.66% (1 dirham)
Kirovabad (Azerbaijan) → 1.6% (3 dirhams)
Jarvlovichi (Chernigov, Ukraine) → 0.35% (1 dirham)
Moguilov (Belarus) → 0.1% (2 dirhams)
Pomerania (Poland) → 6.66% (1 dirham)
Timerevo (Yaroslavl, Russia) → 0.004% (1 dirham)
Úglich (Yaroslavl, Russia)→ 0.48% (1 dirhams)
Tsimliansk (Rostov, Russia)→ ? (1 dirhams)

**Fig. 10.** Andalusí coins beyond al-Andalus borders, according to Martín Escudero 2005.

On the other hand, during the last years, new Arab coin hoards for the governor's period were found in the area of Narbonne<sup>34</sup>, which seems to be the testimony of the Muslim presence in the south of France<sup>35</sup> more than the evidence of a trade flow between the Franks and al-Andalus<sup>36</sup>.

### **The Independent Emirate**

#### *Towards monetary autonomy*

After this first period, in which al-Andalus was a part of the Umayyad caliphate of Damascus, al-Andalus became an Independent Emirate thanks to the Umayyad prince 'Abd al-Raḥmān I, who arrived in al-Andalus fleeing the persecution of the 'Abbāsids and took power in 138/756.

'Abd al-Raḥmān I (138-172/756-788) maintained the Umayyad monetary model, despite the extinction of the dynasty in the East and despite the existence of a new Eastern caliphate, as a symbol of dynastic vindication and as a clear challenge to the new 'Abbāsīd caliphate. It also announced that the Umayyad power had been preserved against the Christian powers of the North of the Iberian Peninsula and against the Carolingians<sup>37</sup>. However, he only minted dirhams. This may have been due to political reasons, according to his well-known policy of prudence whose best example is the fact that he did not proclaim himself caliph, thereby relinquishing the prerogative to mint gold coins<sup>38</sup>.

<sup>34</sup> Parvérie 2014.

<sup>35</sup> Remember that the Muslims conquered Narbonne in 719, and Pepin the Short took Narbonne from the Muslims in 759. Sénac, Gasc, Rebière & Savarese 2010; Sénac, Gasc, Melmoux & Savarese 2014; Sénac 2015: 53-60, 238. The confrontation with the Umayyads of al-Andalus, who were themselves facing the 'Abbāsids, fostered his good relations with Baghdad (Cf. Sénac 2010: 60-62). Good relationships were maintained in the time of Charlemagne (Sénac 2010: 65-67).

<sup>36</sup> Sénac 2015: 241-242.

<sup>37</sup> Ariza Armada 2017-b: 73. Remember the attempts of Charlemagne to take the Andalusian territories that would culminate in the taking of Barcelona (185/801) and its integration into the Frankish world, as well as his support to the governors who rebelled against Cordoba (Sénac 2010: 69-105).

<sup>38</sup> Other reasons could have played a role as the shortage or difficulty of supplying the metal (For different hypotheses, see Miles 1950: 48-51; Barceló 1975: 67). However, the political reason (including legal and

It was ‘Abd al-Raḥmān I who reopened the mint of Cordoba<sup>39</sup>, ensuring its stability and good functioning, although the historian Ibn Ḥayyān attributed this fact to ‘Abd al-Raḥmān II<sup>40</sup>. He carried out a systematic and large-scale production of dirhams, only affected by the political instability in several moments as at the end of the Emirate. In this way, a large amount of currency was put into circulation, thus solving the lack of cash that had forced the population to make commercial transactions with the Eastern currency that circulated in al-Andalus and paying with agricultural and mineral products, as the same Ibn Ḥayyān indicated. However, in my opinion, what seems to be a confusion of the Arab historian could be because of some important actions of ‘Abd al-Raḥmān II in the mint, such as the introduction of different names related to the engravers or mint masters on the dirhams, from the year 219/834-835 (Fig. 11). This responds to the Eastern influence, and it was carried out by an Emir whose government was characterized by the orientalization of the Court.



**Fig. 11.** Dirham of emir ‘Abd al-Raḥmān II. Al-Andalus, 219/834-835. Tonegawa Collection.

The Independent Emirs of al-Andalus didn’t mint fractions of dirhams, which forced the fractionation and manipulation of the coins for smaller transactions, as proven by the monetary finds of the period. They also struck *fulūs* with a small purchasing power, for small transactions.

### *Coin Hoards and Monetary Circulation*

---

theological ones) must be determinant: since he was not proclaimed caliph, he lacked the legitimacy to mint gold coins, even if he had access to the metal (Ariza Armada 2017-b: 73). Regarding access to gold, there are not any conclusive studies, but the policy of prudence of ‘Abd al-Raḥmān is well-known. Moreover, in my opinion, the fact that ‘Abd al-Raḥmān III minted dinars from the very moment he was proclaimed caliph reaffirms the idea of the availability of gold during the Emirate, and that the reasons for not minting dinars were primarily political. From other premises, De Villar 2017: 173-174 also agrees on the availability of gold in the pre-caliphate period. Nevertheless, Arabic literary sources speak about the fiscal collection of dinars during this period, as is the case of the geographer al-‘Udhri referring to the emirates of al-Ḥakam I and Muḥammad I (al-‘Udhri, *Tarṣī*: 93). Therefore, the bimetallic system continued to be maintained even though the dinar were an account currency.

<sup>39</sup> As indicated by ‘Isā al-Rāzī (Ibn Ḥayyān, *Muqtabis* II 2001:180).

<sup>40</sup> Cf. Peña Martín & Vega Martín 2007. In this study of the hoard of Villaviciosa (Cordoba), the authors had well defended that the Andalusi state assumed a systematic policy of minting coins since ‘Abd al-Raḥmān I. Therefore, when mentioning the opening of the Cordoba mint, Ibn Ḥayyān must have confused ‘Abd al-Raḥmān I with ‘Abd al-Raḥmān II. Regarding the issues of ‘Abd al-Raḥmān II see Frochoso Sánchez 2022.

The coin hoards also show the political break with the East. Despite the fact that we know that al-Andalus was not isolated from the rest of *Dār al-Islām*, the circulation of the Eastern coins decreased. The Oriental and Maghrebian dirhams found in al-Andalus were very scarce, especially as the Emirate was progressing (representing less than 0.28% of the total number of coins found, and they were present in only 7 of the 46 known findings)<sup>41</sup>. Unlike the previous period, now the predominant currency is the Andalusī one. Also, even though during the first years the dirhams known were limited, starting with 150/767, the coins became abundant and the annual production more regular (which confirms the idea that ‘Abd al-Raḥmān I was the founder of the mint, as it has been mentioned earlier). This abundant production of Andalusī coinage coincided with the large production of dirhams in the Maghreb. Although the causes of this increase in production in North Africa have been pointed out<sup>42</sup>, it cannot be ruled out that it could be linked to the increase in production in al-Andalus. The low quality of the Maghreb currency, which favored its presence in the East, was not sufficient for crossing to al-Andalus. However, it could have slowed down the presence of the Andalusī coinage in the East. Both the circulation fall of the eastern coins, as well as the regular production of the Andalusī mint, show the consolidation of the Umayyad monetary system in al-Andalus and the strong government control of the monetary system. The currency coming from other Islamic territories didn’t have a great repercussion in the monetary circulation and, therefore, in the Andalusī economy, not even during the final period of the Emirate when the currency was scarce due to political instability, outside the chronological limits of the 2<sup>nd</sup>/8<sup>th</sup> century<sup>43</sup>. This monetary autonomy of al-Andalus is, without a doubt, a reflection of the political autonomy of al-Andalus with respect to the caliphate of Baghdad.

Moreover, for the second part of the 2<sup>nd</sup>/8<sup>th</sup> century, Andalusī Emiral dirhams were found in France: The dirhams were struck between the years 150/768 and 250/864 during the government of the emirs ‘Abd al-Raḥmān I, Hishām I, al-Ḥakam I, and ‘Abd al-Raḥmān II. Having ruled out that their presence could be due to military expeditions in those territories since there were none (after 732), it has been suggested that it could be the result of trade relations between both territories, which would mean a regular contribution of Andalusī dirhams to the economy of the Carolingian Empire<sup>44</sup>. However, according to some studies, we cannot really say that these coins were evidence of a commercial flow: because the number of Andalusī coins is extremely small compared to the findings of British or Scandinavian ones; and because other factors may explain their presence in the findings. For example, they could have responded to spoils of war or to

---

<sup>41</sup> Forty-four have been compiled and analyzed in Martín Escudero 2015. To these should be added: Heidemann, Schierl & Teichner 2018, and Salido, García, Gómez, García, Blanco & Barrio 2020.

<sup>42</sup> Heidemann 2011-b: 455, 457-458.

<sup>43</sup> Canto García & Ibrāhīm 1997: 27-28. From the year 281/894-895, there are no more known emirate issues, which may be due to the fact that the Cordoba mint closed its workshops and did not reopen them until the year 316/928-929.

<sup>44</sup> Parvérie 2009: 68.

the trade with the peninsular Christian territories, which, as they didn't have their own currency, they had to use the Andalusi one<sup>45</sup>. Also, the existence of some of the coins found in France could have been due to Viking expeditions along the Atlantic coast<sup>46</sup>. We have to wait until the 3<sup>rd</sup>/9<sup>th</sup> century to find commercial contacts documented in the textual sources, with Jewish merchants as the main actors<sup>47</sup>. In any case, it is interesting to note that the dates of the dirhams found in France coincide with the time of the greatest monetary production in al-Andalus.

On the other hand, the presence of Carolingian coins in peninsular finds<sup>48</sup>, although scarce, is somewhat more numerous than the one of Eastern Islamic coins<sup>49</sup>. However, except for one specimen attributed with some doubts to Charlemagne, the Carolingian coins discovered in the Iberian Peninsula are emissions that started around the time of Louis the Pious (814-840), which already places us in the 3<sup>rd</sup>/9<sup>th</sup> century. Nevertheless, it should be noted that as in the case of the Arab coinage found in France, it does not seem that we can now say that there is evidence of a regular trade between the Carolingian Empire and al-Andalus<sup>50</sup>. However, these findings may prove that al-Andalus was a stage in the trade between the Carolingian Empire and North Africa and the East. A trade mainly in weapons and slaves, which followed a route from north to south<sup>51</sup>, as the textual sources seem to show. This makes sense if we take into account the diplomatic relations between the French kingdom and the 'Abbāsīd caliphate, as well as the political and monetary autonomy of al-Andalus.

---

<sup>45</sup> Sénac 2015: 249-250.

<sup>46</sup> Clément 2008 and 2009.

<sup>47</sup> For example, the Jew Bodo of Zaragoza was in touch with Charlemagne in 828; or the Jew Abraham, also from Zaragoza, who was very much engaged into slave trade and who was authorized to trade with the Carolingian empire in 828, under the protection of Louis The Pious (814-840) (Sénac 2015: 235).

<sup>48</sup> The Independent Emirate Andalusi hoards with Carolingian deniers are the follows: Calatrava 2, Puebla de Cazalla, Extremadura, Sagrada Familia, Alfocea, Tolmo de Minateda and Cerro da Vila. In contrast, only one is known for the period of the caliphate (Haza del Carmen). Cf.: Santos Gener 1956; Balaguer & Canto García 1987; Martín Escudero, Mínguez Martínez & Canto García 2011; Doménech Belda 2013; Martín Escudero 2013; Sénac 2015: 244.

<sup>49</sup> Martín Escudero 2015: 185.

<sup>50</sup> On the contrary, may be due to the spoils of war, for example (Sénac 2015: 245, 250).

<sup>51</sup> Sénac 2010: 150.



**Fig. 12.** Fragment of Denier of Louis the Pious embedded in a dirham of ‘Abd al-Raḥmān II  
(National Archaeological Museum, Madrid)

In any case, Carolingian coins in peninsular finds and Andalusi coins in France have as a common element the use of foreign coins in the manipulation of autochthonous ones to obtain the desired silver weight for the small transactions, as mentioned (Fig. 12). This in a period in which *fulūs* are increasingly scarce and their production could be linked to the souks, as in the East, or even to the commercial networks of the *ribāṭ*-s, as late as the 3<sup>rd</sup>/9<sup>th</sup> century at the end of the Emirate<sup>52</sup>.

### **Conclusion**

Therefore, during the 2<sup>nd</sup>/8<sup>th</sup> century, the Umayyad Andalusi monetary system was configured and consolidated as part of the Eastern dynamics, hand in hand with the consolidation of the Umayyad dynasty in the Peninsula. During the period of the Governors, al-Andalus was immersed in the economic and monetary system of the Umayyad caliphate, having the Eastern coins an abundant presence in the coin hoards. On the other hand, the Andalusi coins did not have a significant weight in the global Umayyad economy. When al-Andalus became an Independent Umayyad Emirate from the ‘Abbāsīd caliphate, it continued receiving some influences from the East, but the coin hoards show the political break with the East: Eastern coins ceased to circulate in al-Andalus as abundantly as in the previous period and the Andalusi coinage became dominant. Both the circulation fall of the Eastern coinage, the scarce presence of other foreign currencies -as the Carolingian ones-, and the regular and abundant production of the Andalusi mint are evidence of the consolidation and strong state control of the monetary system. However, despite this abundant production, the lower quality of the Maghrebian coins could have slowed down the presence of Andalusi coinage in the East.

---

<sup>52</sup> Doménech Belda 2016.



To the North, the presence of the Andalusi coins was not abundant either, but it is evidence of the political relationships of the moment and, perhaps, also of the incipient role of al-Andalus in the commercial networks of the time, not yet consolidated.

### Bibliography

#### *Arabic Sources*

Al-‘Udhri. *Tarṣī‘ al-ajbār*. Ed. ‘Abd al-Azīz al-Ahwānī, Madrid, 1965.

Ibn Ḥayyān, *Muqtabis* II. Trans. M. A. Makkī & F. Corriente, *Crónica de los emires Alhakam I y Abderraman II entre los años 796 y 847*. Zaragoza, 2001.

### Bibliography

**Abbot, N.** (1938). *The Kurrah Papyri from Aphrodito in the Oriental Institute*. Chicago.

**Ariza Armada, A.** (2001). “Aniconismo e iconografía monetar en al-Andalus”. In Janzon, A. (Ed.) *Primer Simposio España y Estados Unidos. Una mirada desde el instituto Internacional*. Madrid, 23-33.

**Ariza Armada, A.** (2004). “Leyendas monetales, iconografía y legitimación en el Califato Ḥammūdī. Las emisiones de ‘Alī Ibn Ḥammūd del año 408/1017-1018”, *al-Qanṭara*, XXV, 1, 203-231.

**Ariza Armada, A.** (2014). “Poder y legitimidad. Signos y símbolos en la moneda medieval de la Península Ibérica”, *Hesperia. Culturas del Mediterráneo*, IX, I, 181-199.

**Ariza Armada, A.** (2016). “Los dinares bilingües de al-Andalus y el Magreb”, *Revista Numismática Hécate*, 3, 137-158.

**Ariza Armada, A.** (2017-a). “Del sólido al dinar. En torno a las primeras emisiones áureas del Magreb (76/695-696 -100/718-719). Nuevas perspectivas”, *Revista Numismática Hécate*, 4, 88-113.

**Ariza Armada, A.** (2017-b). “The Coinage of Al-Andalus”, *SHEDET (Annual Peer-Reviewed Journal Issued By The Faculty of Archaeology, Fayoum University)*, 4, 68-90.

**Ariza Armada, A.** (2019-a). “Nueva tipología de la ceca *Madīnat al-Zahrā* a nombre del califa ‘Abd al-Raḥmān [III] con leyenda en hebreo”, *Al-Qanṭara*, 40, 1, 13-42.

**Ariza Armada, A.** (2019-b). “Simbología monetar: feluses omeyas orientales y moneda judía. Estudio comparativo”, *Revista internacional Omni*, 13, 295-323.

- Balaguer, A. M.** (1988). “Las emisiones transicionales árabe-musulmanas de al-Andalus. Nueva síntesis”. In *I Jarique de Estudios Numismáticos Hispano-Árabes*. Zaragoza, 11-28.
- Balaguer, A. M. & Canto García, A.** (1987). “Al-Andalus y los carolingios. Un singular testimonio monetario”, *Gaceta Numismática*, 85, 41-49.
- Barceló, M.** (1975). “El hiato en las acuñaciones de oro en al-Andalus, 127-316/744(5)-936(7)”, *Moneda y Crédito. Revista de Economía*, 132, 33-71.
- Barceló, M.** (1983). “Why and how did Andalusian coins travel to Europe during the Emirate and the Caliphate from 98/716-717 to 403/1012-1013”, *Revue de l’Occident Musulman et de la Méditerranée*, 36, 5-18.
- Bar-Magen, A.** (2015). “Una supuesta moneda del siglo VIII con “caracteres hebreos”. Nuevos datos”, *Revue Numismatique OMNI*, 9, 196-211.
- Bar-Magen, A. & Zissu, B.** (2016). “An Eighth-Century Gold Coin from the Iberian Peninsula with a Supposedly Hebrew Inscription”, *The Israel Numismatic Journal*, 19, 76-105.
- Bates, M. L.** (1989). “The Dirham Mint of the Northern Provinces of the Umayyad Caliphate”, *American Numismatic Journal*, 15, 89-111.
- Bates, M. L.** (1992). “The Coinage of Spain Under The Umayyad Caliphs of the East, 711-750”. In *III Jarique de Numismática Hispa-Árabe*. Madrid, 271-289.
- Cano Ávila, P.** (1990). “Monedas orientales de época musulmana halladas cerca de Alcaudete (Jaén)”, *Boletín de la Asociación Española de Orientalistas*, XXVI, 215-231.
- Canto García, A. & Ibrāhīm, T.** (1997). *Moneda Andalusí en la Alhambra*. Granada.
- Canto García, A. & Ibrāhīm, T.** (2004). *Moneda Andalusí. La colección del Museo Casa de la Moneda*. Madrid.
- Catlos, B.** (2018). *Kingdoms of Faith. A New History of Islamic Spain*. New York.
- Clément, F.** (2008). “Les monnaies arabes trouvées dans le Grand Ouest”, *Annales de Bretagne et des pays de la Loire*, CXV, 1, 159-187.
- Clément, F.** (2009). “Deux dirhams arabo-andalous de la période emiral trouvés en Loire”, *Al-Qanṭara*, XXX, 1, 245-256.
- De Villar, J. L.** (2017). *Al Ándalus y las fuentes del oro*. Córdoba.
- Doménech Belda, C.** (1994). “Circulación monetaria de época emiral en el País Valenciano: el problema de las primeras emisiones en cobre”. In *IX Congreso Nacional de Numismática*. Elche, 281-302.

- Doménech Belda, C.** (2013). “La circulation de monnaie carolingienne dans la péninsule ibérique. À propos d’un denier de Roda”, *Revue Numismatique*, 170, 383-410.
- Doménech Belda, C.** (2016). “Monedas, rebeldes y *ribāt*-s a finales del Emirato andalusí”, *Archeologia Medievale*, XLIII, 277-278.
- Eustache, D.** (1968). “La question des monnaies [Extrait du Kitāb Futūḥ el-Buldān d'Abū l-Abbās Aḥmad Ibn Yaḥyà Ibn Ġābir el-Baġdādī, connu sous le nom d'el-Balādurī]”, *Hespéris-Tamuda*, 9, 1, 74-107.
- Eustache, D.** (1970-1971). *Corpus des Dirhams Idrīsites et Contemporains. Collection de la Banque du Maroc et autres collections mondiales, publiques et privées.* Rabat.
- Fontenla Ballesta, S.** (2002). “Aportación a los feluses andalusíes”, *Gaceta Numismática*, 147, 35-41.
- Frochoso Sánchez, R.** (2001). *Los feluses de al-Andalus.* Madrid.
- Frochoso Sánchez, R.** (2015). “El símbolo de la estrella en las primeras acuñaciones andalusíes”. In L.A. García Moreno, E. Sánchez Medina, L. Fernández Fonfría (Eds.) *Historiografía y representaciones. III Estudios sobre las fuentes de la conquista islámica*, 215-231.
- Frochoso Sánchez, R.** (2022). “‘Abd al-Raḥmān II y sus acuñaciones de moneda (206-238 H. 822-852 D.C.)”, *Al-Mulk*, 20, 135-160.
- Heidemann, S.** (2011-a). “Numismatics”. In Robinson C. F. (Ed.) *The New Cambridge History of Islam, vol. I: The formation of the Islamic World. Sixth to Eleventh Centuries.* Cambridge, 648-663.
- Heidemann, S.** (2011-b), “The Circulation of North African Dirhams in Northern Mesopotamia – The Dirham Hoard of Tall al-Bī‘a/al-Raqqā (t.p.q. 186/802)”, *Revue Numismatique*, 167, 451-470.
- Heidemann, S., Schierl, T. & Teichner, F.** (2018). “Coins from the seaside, An Emiral silver coin hoard from a harbor settlement on the Cerro da Vila (Vilamoura, Algarve, Portugal)”, *Al-Qanṭara*, XXXIX, 1, 169-224.
- Ibrāhīm, T.** (2020). Conference: “Los precintos y monedas de la conquista omeya de Hispania (711-756)”, “<https://www.youtube.com/watch?v=O4VndLYlnaY&t=2s> min. 21:09. (25/11/2020).
- Ibrāhīm, T. & Gaspariño, S.** (2020). “Dubious coins of the Umayyad conquest of Hispania”, *Manquso*, 12, 15-26.
- Lavoix, H.** (1887). *Catalogue des monnaies musulmanes de la Bibliothèque Nationale. I : Khalifes Orientaux.* Paris.

- Martín Escudero, F.** (2005). *El Tesoro de Baena. Reflexiones sobre la circulación monetaria en época omeya*. Madrid.
- Martín Escudero, F.** (2013). “Monedas que van, monedas que vienen... circulación monetaria en época de cambios”. In *Actas de la XXXIX Semana de Estudios Medievales: De Mahoma a Carlomagno. Los primeros tiempos (siglos VII-IX)*, Stella, julio 2012, 311-350.
- Martín Escudero, F.** (2015). “Tesoros numismáticos. Mucho más que monedas acumuladas. Hallazgos monetarios de los Emiratos Dependiente e Independiente”. In Sénac, Ph. & Gasc S. (Dir.), *Monnaies du haut Moyen Âge. Histoire et Archéologie (Péninsule Ibérique-Maghreb, VII<sup>e</sup>- XI<sup>e</sup> siècle)*, Villa 5. Toulouse, 173-210.
- Martín Escudero, F., Mínguez Martínez, J. & Canto García, A.** (2011). “La circulación monetaria en el reinado de Alfonso III a través de las fuentes documentales” In *Actas I Congreso Internacional MC aniversario de la muerte de Alfonso III y la tripartición del reino*. Vol. II. Oviedo, 157-205.
- Miles, G. C.** (1950). *The Coinage of the Umayyads of Spain*, vol. II, Nueva York.
- Morgenstern, R.** (1980). “Hallazgo en la provincia de Granada de monedas de plata de los califas Omeyas”. In *II Simposi Numismàtic de Barcelona*. Barcelona, 267-272.
- Noonan, Th. S.** (1980). “Andalusian Umayyad dirhams from Eastern Europe”, *Acta Numismàtica*, X, 81-92.
- Noonan, Th. S.** (1989). “Dirhems omeyas de al-Andalus en los hallazgos del Próximo Oriente, Norte de África, Sicilia y el Caúcaso”, *Gaceta Numismática*, XCII, 25-28.
- Parvérie, M.** (2009). “Deux dirhams d’Andalus ramenés au module et a poids des deniers carolingiens trouves en Aquitaine”, *Objetos y monedas no identificados*, 1, 65-69.
- Parvérie, M.** (2014). “Corpus des monnaies arabo-musulmanes. Des VIII<sup>e</sup> et IX<sup>e</sup> siècles découvertes dans le sud de la France”, *Revue Numismatique OMNI*, 7 (Special Issue: *Las monedas hispano-musulmanas*), 79-100.
- Parvérie, M.** (2022). “Quelques nouveaux fulūs d’al-Andalus provenant de Narbonnaise”, *Bulletin de la Société Numismatique du Limousin*, XXIX, 7-12.
- Pérez Sánchez, J., Francés Vañó, D. & Rodríguez Pérez, R.** (2013). “Revisión de tres feluses africanos que se han venido relacionando con el hecho de la conquista árabe de hispania”, *Revue Numismatique OMNI*, 7 (Special Issue: *Las monedas hispano-musulmanas*), 135-141.
- Peña Martín, S. & Vega Martín, M.** (2007). “La amonedación canónica del emirato omeya andalusí antes de ‘Abd al- Raḥmān II, según el hallazgo de dirhams de Villaviciosa (Córdoba)”, *AM*, 14, 149-202.

- Pliego Vázquez, R. & Ibrāhīm, T.** (2018). “La ciudad a través de las emisiones monetarias y sigilográficas de la Península Ibérica. De la Antigüedad Tardía a la conquista omeya”. In Panzram, S., Callegarin, L. (Dir.), *Entre civitas y madīna: El mundo de las ciudades en la Península Ibérica y en el norte de África (siglos IV-IX)*. Madrid, 135-152.
- Pliego Vázquez, R. & Ibrāhīm, T.** (2021). “A Bilingual Lead Seal from the Umayyad Conquest of the Iberian Peninsula”, *Al-Qanṭara*, 42, 2, 1-8.
- Rodríguez Palomo, D. & Martín Escudero, F.** (2022). “Moneda en contexto arqueológico en *Mārida* (siglos VIII-IX). Estudio e interpretación”, *Arqueología y Territorio Medieval*, 29, 67-84.
- Rodríguez Pérez, R.** (2005). “Iconografía y simbolismo en los feluses de al-Andalus”, *Gaceta Numismática*, 156, 21-33.
- Salido, J., García, R., Gómez, R., García, E., Blanco, M. & Barrio, J.** (2020). “Un nuevo conjunto de monedas emirales del centro peninsular: los *dirhams* del yacimiento arqueológico de El Rebollar (El Boalo, Madrid)”, *Zephyrus*, LXXXVI, 239-257.
- Santos Gener, S.** (1956). “Monedas carolingias en un tesoro de dirhemes del emirato cordobés”, *Numario Hispánico*, V, 9, 79-87.
- Sénac, Ph.** (2010). *Los soberanos carolingios y al-Andalus (Siglos VIII-IX)*. Granada.
- Sénac, Ph.** (2015). *Charlemagne et Mahomet en Espagne (VIIIe-Ixe siècles)*. Paris.
- Sénac, Ph., Gasc, S., Melmoux, P. Y. & Savarese, L.** (2014). “Nouveaux vestiges de la présence musulmane en Narbonnaise au VIIIe siècle”, *Al-Qanṭara*, XXXV, 1, 61-94.
- Sénac, Ph., Gasc, S., Rebière, J. & Savarese, L.** (2010). “Note sur les *fulūs* de Narbonnaise (VIIIe siècle)”, *Al-Qanṭara*, XXI, 225-243.
- Viguera Molíns, M. J.** (2001). “La identidad de al-Andalus”. In *Año mil, año dos mil. Dos milenios en la historia de España (I)*. Madrid, 183 –204.
- VV.AA.** (2006). *Les Trésors du Musée de la Monnaie. Histoire et patrimoine du Maroc*. Rabat.
- Wasserstein, D. J.** (2014). “Sumayr” in *Encyclopedia of Jews in the Islamic World*. Exec. Ed. Norman A. Stillman. Brill Online. [[http://referenceworks.brillonline.com/entries/encyclopedia-of-jews-in-the-islamic-world/sumayr-SIM\\_000491](http://referenceworks.brillonline.com/entries/encyclopedia-of-jews-in-the-islamic-world/sumayr-SIM_000491)].