

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre

Freudenhammer, Thomas

Article

Evidence of Early Medieval Grain Exports from Barcelona to Al-Andalus

Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte (VSWG)

Provided in Cooperation with:

Franz Steiner Verlag, Stuttgart

Suggested Citation: Freudenhammer, Thomas (2025): Evidence of Early Medieval Grain Exports from Barcelona to Al-Andalus, Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte (VSWG), ISSN 2365-2136, Franz Steiner Verlag, Stuttgart, Vol. 112, Iss. 2, pp. 234-246, https://doi.org/10.25162/vswg-2025-0009

This Version is available at: https://hdl.handle.net/10419/322017

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.



https://creativecommons.org/licenses/by/4.0/

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



VIERTELJAHRSCHRIFT FÜR SOZIAL- UND WIRTSCHAFTSGESCHICHTE 112, 2025/2, 234–246 DOI 10.25162/VSWG-2025-0009, (CC-BY 4.0)

THOMAS FREUDENHAMMER

Evidence of Early Medieval Grain Exports from Barcelona to Al-Andalus

ABSTRACT: The unexpected loss of a large cargo of barley taken on loan in Barcelona in 1021 suggests that the merchandise was intended for export. The Jewish merchant concerned, named Benevenisti, may have lost the cargo as a result of a shipwreck. An Arab source from the 11th century reports a maritime connection between the Muslim city of Tortosa, Barcelona and Narbonne, which was used by Jewish traders. Wrecks of Andalusian merchant ships off the Provençal coast show that this connection already existed at the turn of the 10th century. Jewish traders also appear to have travelled on these ships. The contacts between the Jewish communities of the coastal towns in question may have been used for trade transactions. The merchant Benevenisti could have exported his barley to Tortosa via this trade route.

Keywords: 9th to 11th centuries, Barcelona, Al-Andalus, Tortosa, Al-Bakrī, Jewish merchants, grain trade

JEL Codes: N54, N74, N94

1. Introduction

In his major study on 10th and 11th-century Catalonia, the French historian Pierre Bonnassie makes reference to a Jewish merchant in Barcelona called Benevenisti. In 1021, this merchant, whose Hebrew name was Nathan, borrowed a cargo of barley of such a large volume that Bonnassie comes to the conclusion that he wanted to resell the grain. Bonnassie also surmises that Benevenisti wanted to put the barley on the local market in Barcelona and dismisses the possibility that he planned to ship it to the Andalusi town of Tortosa as an "unfounded hypothesis." 2

The aim of this study is to examine whether the hypothesis of grain exports to Al-Andalus can be substantiated. However, the Latin documents from Catalonia are not very helpful in this matter. For the 10th and 11th centuries, it is mainly land purchases and donations that are recorded, documents that are mostly silent on trade. At least some deeds of pledge and wills mention movable goods, including grain in measured quantities. In most cases, grain was measured in *kaficios*, a unit of capacity whose Arabic origin provides a first indication of trade with Al-Andalus.

- Bonnassie (1975/76), p. 431: 'Nathan emprunte pour revendre'.
- 2 Ibid, p. 433: 'Et peu importe, dans ces conditions, de savoir si le Juif Benvist Nathan revend au petit peuple barcelonais le blé qu'il achête à crédit ou s'il le charge (et on revient ici aux hypothèses gratuites) sur les galères de Tortosa'.

However, we have to resort to "external" sources in order to find out more facts. A well-known scandalous story handed down by the Andalusi geographer and historian Al-Bakrī gives us a first insight into a maritime connection between Al-Andalus and the Frankish Kingdom that existed in the 11th century. Already in the 10th century, another Andalusi author named Al-Rāzī praises the harbour of Tortosa for its proximity to the merchants of "Francia". Further evidence is provided by the wrecks of several Andalusi merchant ships found off the coast of Provence. All these sources confirm the existence of an established maritime trade route that was also used by Jewish merchants. Finally, we have to look at the circulation of Andalusian gold coins ("mancuses") in Catalonia that also suggests regular trade between the two countries.

2. A cargo of barley and a Jewish merchant

Let us return to Nathan Benevenisti. On 21 January 1021 he pledged two estates to a woman named Ermengardis as security for a cargo of 38 *kaficios* of barley that he had borrowed from her.³ As was customary with grain loans at the time, the date for repayment was the upcoming feast of St Felix of Girona. This feast was celebrated on 1 August and marked the end of the grain harvest. It was assumed that people who had borrowed grain out of material need would be able to repay the debt from the new harvest.⁴ Benevenisti, for his part, could not repay his loan on time, whereupon Ermengardis granted him an extension for a whole year. Even by the new deadline, Benevenisti was unable to repay 35 of the 38 *kaficios* of barley he had borrowed. On 12 August 1022, after consultation with a commission of three judges and several assessors, Ermengardis finally sold the larger of the two pledged properties for the price of eighteen ounces of gold (equal to 126 gold mancuses).⁵

Barley was the most widely cultivated cereal in Catalonia in the 10th and 11th centuries, well ahead of wheat. Barley bread was a staple food for the common people and was also fed to livestock. How much would 38 kaficios of barley be in today's units of measurement? The name kaficio seems to have been adopted from the Arabic grain measure qafīz, which was used in Córdoba in the 10th century. The Spanish Arabist Vallvé Bermejo calculates the volume of the qafīz of Córdoba to be 33 litres based on information from contemporary Arab authors. If we assume that the measure itself was adopted along with its name, 38 kaficios of barley would correspond to 12.5 hl or 0.75 tonnes. Pierre Bonnassie is instead guided by the traditional measure

- 3 ACB, 334: Ego Benevenisti ebreo impignorator sum tibi Ermeniards femina. Manifestum est enim quia debitor sum tibi kaficios XXXVIII de ordeo nitido purgato a mensura de tuo domo unde tu mihi prestasti.
- 4 For the mechanisms of credit see Bonnassie (1975/76), pp. 402-404.
- ACB, 353: Advenit mihi prefata terra per pactum pignoris quod mihi fecit exinde et de altero alode [...] Benevenisti hebreus qui alio nomine dicitur Nathan, propter kaficios XXXV de ordeo. [...] Ego vero expectavi eum ultra placitum temporis quemadmodum lex iubet, atque amplius. [...] Quapropter, insistentibus iudicibus Vivano et Bonofilio Marcho et Gitardo Aurutio aliisque idoneis viris [...]. The second property pledged in 1021 is not affected by this deed; presumably Benevenisti was able to repay the corresponding three kaficios of barley.
- 6 Bonnassie (1975/76), pp. 94, 302 f., 471.
- 7 Vallvé Bermejo (1977), pp. 89 f. and 115; 28 litres is given by Vallvé as an alternative value.

cafís used in rural Catalonia and estimates the volume of the *kaficio* of Barcelona at 2 hl, the 38 *kaficios* would therefore be 75 hl or around 4.5 tonnes of barley.⁸

In order to get an idea of the size of Benevenisti's barley loan, regardless of its actual volume, we can compare his 38 *kaficios* with the smallest amount of barley loans recorded in the 11th century. On 21 March 1018, the married couple Baron and Blancucia borrowed two *sextarios* of barley and pledged their farm in the district of Olèrdola in the south of the county of Barcelona in return. Apparently, they had to make do with this amount of grain for the entire four months until 1 August, hoping to be able to repay the loan from the new harvest. Two *sextarios* of barley equalled one-sixth of a *kaficio* and therefore made up the 228th part of the 38 *kaficios* that Benevenisti had borrowed. Benevenisti thus could have supplied over three hundred people with barley for the whole six-month term of his loan. A loan of this size was obviously not intended for the debtor's own use, but rather for commercial purposes.

Benevenisti probably expected to sell the 38 *kaficios* of barley he had borrowed within six months at a price that would have brought him a profit after deducting the repayment to Ermengardis. However, he was unable to sell most of the grain even after the generous extension from the lender. Why did this deal fail? On the local market of Barcelona, there must have been a constant demand for barley from the townspeople. It is therefore unlikely that Benevenisti has been left sitting on his barley there. What else would he have done with his loan? Had he planned to export the grain by sea? Under this assumption, an ordinary shipwreck could have led to the loss of the cargo and the subsequent cancellation of the payment.

Incidentally, Benevenisti does not appear to have borrowed grain just this one time. Between 29 August and 5 September 1022, that is shortly after the loss of his estate from the previous pledge, he pledged another estate from his possession, this time to a certain Guadallus, the administrator of the household (*mense prepositus*) of the Count of Barcelona. We can assume that the loan was a cargo of grain this time as well. Benevenisti had evidently not been discouraged from his business model by the previous default and continued to count on good business in the grain trade.

- 8 Bonnassie (1975/76), p. 431 gives a value of 180 to 200 litres for the *kaficio* 'sous toute réserve'; Feliu Montfort (2001), p. 134 calculates 231.7 litres for one *kaficio*.
- For the smaller units see Benito (2009), p. 58: 1 kaficio = 12 sextarios = 24 eminas = 96 quarteras.
- 10 ACA, 127. In a similar case dated 30 November 1027, a woman named Guarengardis pledged a plot of land to her son Guifardus for 3 *eminas* and 3 *quarteras* of barley. This amount, 1% *sextarios*, had to last Guarengardis eight months: ACA, 182.
- Bonnassie (1975/76), p. 431; Benito i Monclús (2009), p. 56. Benevenisti's 38 kaficios of barley represent by far the largest grain loan recorded. Substantial loans were also taken out to cover special needs. On 26 September 1016, for example, the married couple Marteso and Ermetruite pledged 2 modiatas (approx. 1 ha) of vineyards in exchange for 8 kaficios of barley (ACB, 259). This date coincides with the grape harvest. Apparently, the debtors were winegrowers who borrowed barley to feed the harvesters, which they could repay from the proceeds of the new wine by 1 August of the following year. Count Berenguer Ramon I also borrowed 6 kaficios of barley on 31 December 1021, presumably to supply the count's court (ACB, 340). The few wheat loans that have survived are all less than 1 kaficio.
- 12 ACB, 356 (29/08/1022): A plot at Montjuic borders on terra et vinea Benevenisti hebrei to the south. ACB, 357 (05/09/1022): The same property borders to the south on alode Benevenisti hebrei quod pignore tenet Guadallus mense prepositus.

We know the names of about a dozen people from the Jewish community in Barcelona around the year 1000. The Jews owned land in the neighbourhood of the city, which they were free to sell or bequeath. Benevenisti also owned other estates and vineyards in addition to the mortgaged properties. We know of two cases of money lending by a Jew from the period in question, but Christians, not least clergymen, also lent money in return for pledges. The only mention of a profession concerns a Jewish goldsmith named Bonnom (Bononomen ebreo aurifice), who minted gold coins ("mancuses") modelled on Andalusi dinars on behalf of the Count of Barcelona between 1018 and 1023. Bonnom will certainly have known his contemporary Benevenisti, but there is no evidence of any closer relationship between the two men. We have no exact knowledge of the life dates of the grain merchant. In 1029, Barcelona (sic!), the widow of a Benevenisti, together with her sons Bononomine and Dedenatus, sold a plot of land in the centre of the city of Barcelona, close to the ruins of the ancient Roman temple called "the Miracle" (ad ipso miraculo). However, we do not know whether this Benevenisti was identical with the grain merchant of the same name.

3. How to abduct a countess

Can the assumption that grain was exported from Barcelona by sea in the early Middle Ages be confirmed by other sources? What role did Jewish merchants play in this context? To which country was the grain exported? The Andalusi geographer Abū 'Ubaid Al-Bakrī (1014–1094) gives us a valuable clue. In his "Book of Ways and Empires", completed in 1068, he reports on the abduction of Countess Almodis of Toulouse by Count Ramon Berenguer I of Barcelona.¹⁸ In 1054/55, the latter had stopped off at a magnate's house in Narbonne on a pilgrimage to Jerusalem. During his stay, he and the wife of his host fell in love with each other. On his return journey, Count Ramon again stopped over at Narbonne and arranged a ruse with Almodis to help her escape from her husband and come to Barcelona. Literally, Al-Bakrī then states: "When he [Ramon Berenguer] returned to Barcelona, he sent her [Almodis] a group of Jews for this purpose; the ruler of Tortosa, privy to the matter, had them [the Jews] brought to Narbonne on galleys."¹⁹

However, the ruse was unsuccessful. The husband, Count Pons II of Toulouse, became suspicious and had his wife locked up as a precaution. Nevertheless, Almodis eventually managed to escape to Barcelona thanks to the mediation of relatives. There, she married Ramon Berenguer, who disowned his wife Blanca in turn. Al-Bakrī then tells the subsequent story of the count's

- 13 Romano (1991).
- 14 Ibid, p. 325 f.; Bonnassie (1975/76), pp. 400-402.
- 15 Bonnassie (1975/76), pp. 380-382; Miles (1962).
- 16 SBB, 900: Ego Barcelona ebrea, una cum filii mei Bononomine et Dedenatus ebreis. [...] Advenit nobis per vocem Bevenisti ebreo virum, qui est condam, ad me supra nominata Barcelona ebrea, et ad nos predicti filii per vocem patris nostri condam. In the Hebrew part of the document, the sons are called Nahman and Netanel.
- 17 Another possibility is offered by ACB, 1286, a document from 1075, in which a *Habram ebreo filium condam Benevenisti ebreo* is mentioned. This Benevenisti, father of *Habram*, was probably not identical with the father of *Nahman* and *Netanel* of the same name. One of them could have been our grain merchant.
- 18 Lévi-Provençal (1938), pp. 53-55 (French translation) and 42 f. (original Arabic text).
- 19 Ibid, p. 43: fa-lammā waṣal ila baršilūna arsal ilai-hā qauman min al-yahūd fī dalik, wa daḥal ṣāḥib ṭarṭūša fī-l-amr fa-ausal-hum fi-l-šawānī ila narbūna. Translation into English by the author.

excommunication by the Pope and the circumstances of his later rehabilitation, but this is of no further interest to us.²⁰

The episode reported by Al-Bakrī in this passage took place during the author's lifetime, a few years before his book was written. How did the Andalusi geographer learn about events that took place in Barcelona, Narbonne and Rome, places that belonged to the foreign Christian world? At one point in his work, Al-Bakrī quotes from the records of Ibrāhīm ibn Yaʻqūb Al-Ṭarṭūšī, a Jew from Tortosa who had travelled through Central Europe around the middle of the 10th century. It is likely that Al-Bakrī also received the news of the abduction of Almodis, this time by word of mouth, from the Jews of the Andalusi harbour town of Tortosa, who in turn were informed by the Jews of Barcelona. This chain of tradition across the Christian-Muslim cultural border also provides evidence of the close contact between the Jewish communities of Barcelona and Tortosa.

While the Jews of Tortosa and Barcelona co-operated in the attempted abduction of Countess Almodis, the Emir of Tortosa had to take over the transport of the "group of Jews" to Narbonne, as Barcelona obviously did not yet have its own ships at the time. ²² Al-Bakrī calls the ships from Tortosa "galleys". The Arabic term he uses, šawānī (singular: šīnī or šānī), refers to a ship propelled by one hundred oarsmen, which was used for military purposes but also in maritime trade, as some documents from the Geniza of Cairo confirm. ²³

4. Galleys from Tortosa

In 1053/54, the Emir of Tortosa sent galleys to Narbonne at the request of the Count of Barcelona. Apparently, this northern Mediterranean route was well known in Al-Andalus from regular trade voyages. As early as the 9th and 10th centuries, Andalusi trading ships sailed as far as the coasts of Provence, as evidenced by four shipwrecks there. ²⁴ Jewish traders are also likely to have travelled on these ships. A clay jug was found in one of the wrecks, on which the personal name Sa'ad, common in both Arabic and Hebrew, was carved next to a Star of David. ²⁵ During their travels, these merchants were able to familiarise themselves with the conditions in the harbour cities they visited and cultivate their relationships with the local Jewish communities. Against this background, it seems plausible that Count Ramon Berenguer commissioned a group of Jewish merchants from Tortosa with the operation in Narbonne. ²⁶ He knew these merchants well from their visits to Barcelona and trusted them to carry out a difficult mission due to their knowledge of the various countries. For their part, the merchants from Tortosa had good relations with the Jewish community in Barcelona,

²⁰ Aurell (1995), pp. 260–262 also points out that Narbonne was not the seat of the counts of Toulouse, but it was part of his domain; see also Catafau (2017), pp. 108 f.

²¹ Lévi-Provençal (1938), pp. XXIV and 206; Ducène (2018), pp. 163-167.

²² Catafau (2017), p. 109, first evidence of own ships in Barcelona from the year 1079.

²³ Lévi-Provençal (1953), pp. 322 f.; Gil (2008), pp. 253, 258, 263. In contrast, Lirola Delgado (1993), pp. 302 and 311 f.

²⁴ Wickham (2023), pp. 458 f.; Richarté-Manfredi (2023), pp. 36 f. See also figure 1 below.

²⁵ Joncheray (2007), p. 151, fig. 19; other jugs bear typical Islamic names such as Muḥammad, Aḥmad and Ḥassan.

²⁶ Bonnassie (1975/76), pp. 416 f.

with whom they may also have traded.²⁷ The grain merchant Benevenisti thus may have used this trade route to export his barley to Tortosa on the emir's galleys.

The city of Tortosa was the northernmost Andalusi harbour city on the Mediterranean coast and an important naval base of the Umayyad Caliphate. A large shipyard was built there in 945.²⁸ As a result of the Andalusi civil war (*fitna*) erupted in 1009, which ultimately led to the collapse of the caliphate, Tortosa became the capital of an independent emirate. Due to its location at the mouth of the River Ebro, it was well connected to the interior of the country. This gave the harbour of Tortosa an important role in international trade. The Andalusi historian and geographer Aḥmad al-Rāzī noted in his work "News of the Kings of Al-Andalus" that merchants came to the harbour of Tortosa "from all parts of the world" and specifically emphasised its proximity to the Frankish Kingdom.²⁹ During the 10th century, Barcelona was still part of the Frankish Kingdom or *Ifranğ* as it was called in Arabic. We can therefore take the message from Al-Rāzī as good evidence that there had already existed a regular trade between Barcelona and Tortosa at the time.

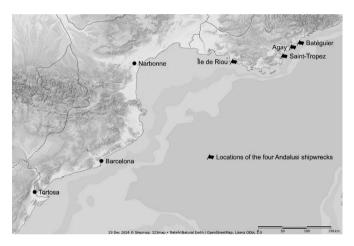


Figure 1: The Catalan and southern French coast. Software provided by StepMap GmbH, Berlin.

Is it even plausible to assume that grain was exported from Barcelona to Tortosa in the 10th and 11th centuries? Al-Andalus generally seems to have produced sufficient grain, primarily wheat and barley, for its own consumption. However, periods of drought led to temporary supply shortages.³⁰ Consequently, the geographer Ibn Ḥawqal reports the import of grain from North Africa (Oran) to Al-Andalus in the middle of the 10th century. Olivia Remie Constable surmises that it may have been more economical for the coastal regions of Al-Andalus to import grain by sea from North

²⁷ Ashtor (1979), p. 287.

²⁸ Lirola Delgado (1993), pp. 325 f.

²⁹ Romera Manzanares (2024), p. 130: Et Tortosa ha muy buen término et buen puerto et los mercadores vienen ý de toda la parte de la tierra, et es cerca de los de Francia. Aḥmad al-Rāzī lived in the 10th century, but his work has only survived in a Castilian version from the 14th century.

³⁰ Lévi-Provençal (1953), pp. 271 f.; Vallvé Bermejo (1982), pp. 279–282.

Africa than via poor roads from the interior.³¹ This could also have applied to the relatively short sea route from Barcelona to Tortosa, possibly in competition with river transport on the Ebro. Al-Rāzī also reports on an extensive saffron cultivation in Tortosa.³² This monoculture could have caused a structural grain deficit in the region, which would have required a corresponding import. Al-Bakrī, for his part, mentions that the Barcelona region produced a lot of wheat and other cereals as well as honey.³³

5. Grain producers and measures of capacity

Who was this Ermengardis who provided the Jew Benevenisti with 38 *kaficios* of barley in 1021? In any case, she must have been a producer of large quantities of grain. Ermengardis, the eldest daughter of the late Count Borrell II, who had been married to Viscount Geribert of Barcelona, would fulfil this requirement.³⁴ This Ermengardis made her will on 17 October 1029, in which she bequeathed large quantities of wheat and barley. In addition to some smaller legacies measured in *kaficios*, she bequeathed all her "grain that is in Castelldefels" to the monastery of Sant Cugat del Vallès, as well as "the grain that is in Porto" to the church of Santa Maria de Porto.³⁵ "Porto" was the name of the coastal area southwest of Barcelona, where a large lagoon with an opening to the sea (*stagno de Porto*) probably served as a harbour in the early Middle Ages.³⁶ Some of Ermengardis' grain fields were therefore in a very favourable location if the harvest was destined for export by sea.³⁷ As Ermengardis used her own *kaficio* measure and knew the current grain prices, she was obviously used to selling her crops.³⁸

As we have seen, Benevenisti also owned several estates in the neighbourhood of Barcelona, although probably not as many as his supplier Ermengardis. In his deed of pledge of 1021, he states that he had inherited one of the two plots concerned from his parents and bought the other.³⁹ As a professional grain trader, he would have bought new estates as an investment. At the same time, he was able to use the land as pledge in order to acquire new grain for his trade from local producers such as Ermengardis.

Let us have a look now at the measures of capacity used in Barcelona during the 10th and 11th centuries. The "Arabic" *kaficio* was most likely first introduced in Catalonia in the wake of the Muslim conquest in the 8th century. ⁴⁰ As a result of the subsequent Frankish conquest at the turn of the 9th century, it was largely replaced by the Carolingian *modio*. However, in the County of Barcelona, with the regions Maresme, Vallès and Penedès, the *kaficio* was retained, or re-introduced at a later

- 31 Constable (1994), pp. 162 f.
- 32 Romera Manzanares (2024), p. 130: otrosí mucho açafrán et muy bueno.
- 33 Lévi-Provençal (1938), pp. 54 (French), 42 (Arabic).
- 34 Bonnassie (1975/76), pp. 626f.; Ruiz-Domènec (2006), pp. 80 f.
- 35 ACB, 437: ipso blado qui est ad Sancta Maria de Kastel de Fels [...]et de ipso blado qui est in Porto.
- 36 Banks (1984).
- 37 Castelldefels is just 10 kilometers further west along the coast.
- 38 ACB, 334: kaficios XXXVIII de ordeo nitido purgato a mensura de tuo domo. ACB, 353: quia hodie potest venundari quarta una ordei mancusum unum.
- 39 ACB, 334: Advenit mihi per genitores meos vel per comparacione.
- 40 Lorenzo/Pastor (2013), pp. 61 f.: 'con los tributos venían las medidas'.

stage, as illustrated in figure 2 below.⁴¹ This distribution of the *kaficio* exclusively in an area close to the harbour city of Barcelona could be an indication of its use in the export trade with Al-Andalus. Under this assumption, the *kaficio* would have been retained or re-introduced since the grain shipped to Al-Andalus had to be measured in Arabic *qafīz*. Due to the high cost of land transport, participation in this business would have been limited to producers in the vicinity of the harbour of Barcelona and adjacent areas. Table 1 below lists the documents that prove the use of the *kafīcio* in the respective places up to the year 1000. Most of them are wills or sales following unpaid loans. The *kafīcios* were used to measure grain and wine.

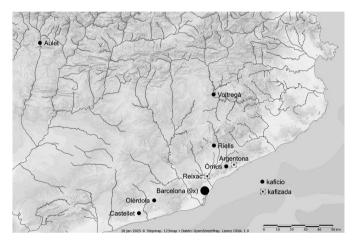


Figure 2: The mentions of the measure *kaficio* in Catalonia up to the year 1000. Barcelona has 9 mentions. *Kafizada* is an area measure derived from *kaficio*. In the rest of the country, the Carolingian measure *modio* was used.

Software provided by StepMap GmbH, Berlin.

41 As an apparent exception from the rule, the will of Inguilrada, a wealthy landowner from Voltregà north of Vic, dated 24 October 981 (CC 4, 1354) contains both capacity measures: she bequeathed her servants and a local priest one *modio* of wine each. The nunnery of St Peter of Barcelona (Sant Pere de les Puelles), on the other hand, received five *kaficios* of wine. Inguilrada obviously took into account the fact that wine in Barcelona was not measured in *modios* – as it was at her home in Voltregà – but in *kaficios*. The only other mention of the *kaficio* in the interior of Catalonia is in the north-western county of Ribagorça in the district of Aulet at the very early date of 867.

Table 1. The measure kaficio in Catalonia until the year 1000

Year	Source	County	Measure	Location/Region
867	CC 3, 135 (with p. 550)	Ribagorça	K(aficio)	Aulet
894	CC 7, 84	Barcelona	Kafizada	Argentona/Maresme
972	CC 7, 593	Barcelona	Kaficio	Riells/Vallès
974	CC 7, 623	Barcelona	Kaficio	Òrrius/Maresme
981	CC 4, 1354	Ausona	Modio Kaficio	Voltregà Barcelona
986	CC 7, 902	Barcelona	Kaficio	Olèrdola/Penedès
987	CC 7, 949	Barcelona	Kaficio	Barcelona-Provençals
989	CC 7, 1007	Barcelona	Kafizada	Albinyana/Vallès
989	CC 7, 1013	Barcelona	Kaficio	Barcelona-Provençals
989	CC 7, 1038	Barcelona	Kaficio	Barcelona-Vilapiscina
990	CC 7, 1084	Barcelona	Kaficio	Barcelona
992	CC 7, 1141	Barcelona	Kaficio	Barcelona
992	CC 7, 1165	Barcelona	Kafizada	Albinyana/Vallès
995	CC 7, 1268	Barcelona	Kaficio	Barcelona
998	CC 7, 1436	Barcelona	Kaficio	Barcelona-Provençals
998	CC 7, 1440	Barcelona	Kaficio	Castellet/Penedès
998	CC 7, 1456	Barcelona	Kaficio	Barcelona-Horta

We have already mentioned the pledge that Benevenisti entered into in 1022. This time his lender was Guadallus, a high official of the Count of Barcelona who bore the title *preposito comitalis mense.*⁴² This office goes back to the Carolingian period and originally comprised the administration of the goods of the Frankish royal court ("the overseer of the king's table").⁴³ It had obviously been taken over by the counts of Barcelona. Besides Ermengardis, probably a daughter of Count Borrell, Guadallus would thus be the second member of the count's household known to us who supplied the grain merchant Benevenisti with goods.

The grain producer Ermengardis maintained a close and trusting business relationship with the merchant Benevenisti. Her aim was apparently to export her grain surplus to Al-Andalus on a regular basis. To this end, Ermengardis wanted to secure the services of the Jewish merchant, so she treated him with patience and forbearance even after he defaulted on his loan in 1021. Not only did she grant Benevenisti the ten-day extension beyond the agreed date prescribed by Visigothic law, she also waited another whole year before finally selling the pledge.⁴⁴ She even managed to obtain a particularly high price for the property, which exceeded the value of the borrowed 35 *kaficios* of barley by three ounces of gold. Ermengardis refunded this surplus (21 mancuses) – after deducting

⁴² ACB, 357 and ACB, 301 (1018).

⁴³ Gross/Schieffer (1980), p. 74: senescalcus / regiae mensae praepositus; Bonnassie (1975/76), p. 169.

⁴⁴ ACB, 353; Zeumer (1902), p. 232: Lex Visigothorum V, 6, 3.

the fees for the judges – to the debtor Benevenisti, as required by the law. As mentioned at the beginning, three judges and eight assessors (*idonei viri*) had advised Ermengardis on the sale of her pledge, while the Visigothic law only provided for one judge and three assessors (*honesti viri*). Such preferential treatment suggests that Benevenisti's grain supplier enjoyed a high social status and may in fact have been Ermengardis, the eldest daughter of Count Borrell.

6. Conclusions

The messages from Al-Rāzī and Al-Bakrī as well as the finds of underwater archaeology provide good evidence for the existence of a maritime trade route between Al-Andalus and southern France from the 9th to the 11th century. Jewish traders travelling on Muslim galleys visited the Christian harbour cities of the Frankish Kingdom. Tortosa, the northernmost Andalusi harbour town on the Mediterranean, seems to have played a key role in this business. The shipwrecks off the Provençal coast show Andalusi ceramics and copperware as well as millstones as trade goods. In addition, bulk goods such as olive oil and red wine (sic!) were also transported in large clay barrels ("dolia").46

Jewish merchants in Barcelona could also have used this trade route and exported goods to Al-Andalus. Nathan Benevenisti may well have been one of these merchants, who specialised in grain. Under this assumption, the loss of his barley in a shipwreck would appear plausible. Benevenisti was probably not the only grain merchant in Barcelona, and the galleys from Tortosa could certainly carry more than 38 *kaficios* of barley. Finally, other foodstuffs such as wheat and honey, which are mentioned by Al-Bakrī, could also have been exported from Barcelona to Al-Andalus.

Unfortunately, we do not learn many details about the modalities, let alone the dimensions, of this presumed trade. The Jewish middleman Benevenisti seems to have obtained his grain from agricultural producers which belonged to the family and the household of the counts of Barcelona. According to the only surviving transaction of 1021, he received the goods on credit in exchange for the pledging of land. In this one instance, the barley was lost and consequently not paid for. The estate pledged as security was confiscated and sold by the lender, which required notarisation according to the usage of the time. By contrast, most of the trade transactions that were probably successfully completed left no written traces.

Finally, the assumption of regular grain exports from Barcelona to Tortosa would provide a plausible explanation for the so-called Catalan "gold fever". Pierre Bonnassie used this expression to describe the massive influx of Andalusi dinars into Barcelona and the rest of Catalonia which were referred to as "gold mancuses" and established themselves as the main currency for several decades.⁴⁷ The first mancuses are recorded in the 980s, only a short time after they began to be

⁴⁵ ACB, 353: Reliqum vero auri penes me retineo, ut suprafatus hebreus separato exinde comodo iudicum supra dictorum recipiat, qui pignus deposuit. The document then quotes extensively from the law, cf. Zeumer (1902), pp. 73 f.: Lex Visigothorum II, 1, 26.

⁴⁶ Joncheray (2007); Richarté-Manfredi/Garnier (2021), pp. 29 f. These 'dolia' could hold up to 1,000 litres. However, it is not clear in which direction these goods were travelling.

⁴⁷ Bonnassie (1975/76), pp. 372–376, 423–425. However, Bonnassie was unable to identify corresponding trade goods that Catalonia could have exported to Al-Andalus in exchange. Instead, he refers to the pay

regularly minted in Córdoba. They first appeared in the city and surrounding area of Barcelona and only gradually penetrated into the hinterland, a clear sign of their origin in maritime trade.⁴⁸

If we take the use of the measure *kaficio* in Barcelona as a reference, grain exports to Al-Andalus may have begun as early as the turn of the 10th century. Later, they survived the political unrest that beset Al-Andalus from 1009 as a result of the civil war. In 1021, the Jewish merchant Benevenisti of Barcelona lost a large shipment of barley, which was probably destined for the export. We cannot say how long the grain trade lasted in the 11th century. In any case, around 1054, galleys were still sailing from Muslim Tortosa to Barcelona, and Jewish merchants from both cities were in close contact. It was only in 1148, after the conquest by Count Ramon Berenguer IV of Barcelona, that Tortosa came under permanent Christian rule.

Sources and References

Printed charters

- ACA Feliu i Montfort, Gaspar / Salrach i Marés, Josep M. (eds.) (1999): Els Pergamins de l'Arxiu Comtal de Barcelona de Ramon Borrell a Ramon Berenguer I, Barcelona.
- ACB Baucells i Reig, Josep / Fàbrega i Grau, Àngel (eds.) (2006): Diplomatari de l'Arxiu Capitular de la Catedral de Barcelona, Segle XI, Barcelona.
- CC 3 Abadal i de Vinyals, Ramon d' (ed.) (1955): Catalunya Carolíngia, Volum III, Els comtats de Pallars i Ribagorça, Barcelona.
- CC 4 Ordeig i Mata, Ramon (ed.) (1999): Catalunya Carolíngia, Volum IV, Els comtats d'Osona i Manresa, Barcelona.
- CC 5 Ordeig i Mata, Ramon (ed.) (2009): Catalunya Carolíngia, Volum V, Els comtats de Girona, Besalú, Empúries i Perelada, Barcelona.
- CC 7 Baiges i Jardí, Ignasi J. / Puig i Ustrell, Pere (eds.) (2019): Catalunya Carolíngia, Volum VII, El comtat de Barcelona, Barcelona.
- CC 8 Ordeig i Mata, Ramon (ed.) (2020): Catalunya Carolíngia, Volum VIII, Els comtats d'Urgell, Cerdanya i Berga, Barcelona.
- SBB Salvadó i Montoriol, Joan (ed.) (2012): El monestir benedictí de Sant Benet de Bages. Fons documental: Identificació, edició i estudi. Segles X–XI, Toms II i III: Diplomatari de Sant Benet de Bages (898–1123), Lleida.

References

Ashtor, Eliyahu (1979): The Jews of Moslem Spain, vol. 2, Philadelphia.

Aurell, Martin (1995): Les noces du comte. Mariage et pouvoir en Catalogne (785–1213), Paris.

Banks, Philip (1984): Montjuïc, the Port and the City: a Reconsideration, in: Jaume Sobrequés i Callicó (ed.): *El pla de Barcelona i la seva història*, Barcelona, pp. 113–128.

that flowed into Catalonia from 1010 onward as a result of mercenary activities in the Andalusi civil war. However, the 'gold fever' had already begun in the 980s.

48 Ibid., pp. 374–379, 384 f. Before the introduction of the gold currency in Al-Andalus, silver dirhams may have paid the exports.

Benito i Monclús, Père (2009): Retour au Toulousain. Famines graves, exode et persistance de la famine en Catalogne à l'époque du comte Raimond Borrell (1000–1018), in: Claude Denjean (ed.): Sources sérielles et prix au Moyen Âge. Travaux offerts à Maurice Berthe, Toulouse, pp. 43–80.

- Bonnassie, Pierre (1975/76): La Catalogne du milieu du Xe à la fin du XIe siècle. Croissance et mutations d'une société, vol. 2, Toulouse.
- Catafau, Aymat (2017): La Catalogne et la mer aux Xe–XIIe siècles: L'autre frontière, in: *Les Cahiers de Saint-Michel de Cuxa XLVIII: L'art roman et la mer*, pp. 101–114.
- Constable, Olivia Remie (1994): Trade and traders in Muslim Spain. The commercial realignment of the Iberian peninsula, 900–1500, Cambridge.
- Ducène, Jean-Charles (2018): L'Europe et les géographes arabes du Moyen Âge (IXe-XVe siècle). La "Grande Terre" et ses peuples. Conceptualisation d'un espace ethnique et politique, Paris.
- Feliu i Montfort, Gaspar (2001): Algunes consideracions sobre la metrologia altmedieval catalana, in: *Acta historica et archaelogica mediaevalia* 22, pp. 121–149.
- Gil, Moshe (2008): Shipping in the Mediterranean in the Eleventh Century A. D. as Reflected in Documents from the Cairo Geniza, in: *Journal of Near Eastern Studies 67*, pp. 247–292.
- Gross, Thomas / Schieffer, Rudolf (eds.) (1980): *Hinkmar von Reims. De ordine palatii*. MGH Fontes Iuris Germanici Antiqui in usum scholarum separatim editi III, Hanover.
- Joncheray, Jean-Pierre (2007): L'Épave sarrasine (haut Moyen-Âge) de Bataiguier, ou Batéguier, opérations archéologiques de 1973 et 1974, in: Cahiers d'archéologie subaquatique 16, pp. 131–212.
- Lévi-Provençal, Évariste (1938): La péninsule Ibérique au Moyen-Age. D'après le Kitāb ar-rawḍ al-mi'ṭār fī ḥabar al-akṭār d'Ibn 'Abd al-Mun'im al-Himyarī. Texte arabe des notices relatives à l'Espagne, au Portugal et au sud-ouest de la France, publié avec une introduction, un répertoire analytique, une traduction annotée, un glossaire et une carte, Leiden.
- Lévi-Provençal, Évariste (1953): Histoire de l'Espagne musulmane. Tome III, Le siècle du Califat de Cordoue, Paris.
- Lirola Delgado, Jorge (1993): El poder naval de Al-Andalus en la época del Califato Omeya, Granada. Lorenzo, Jesús / Pastor, Ernesto (2013): Dominando territorios, imponiendo medidas. De Banbalūna a Baršilūna, in: Xavier Ballestín / Ernesto Pastor (eds.): Lo que vino de Oriente. Horizontes, praxis y dimensión material de los sistemas de dominación fiscal en Al-Andalus (ss. VII-IX), Oxford, pp. 56–71.
- Miles, George C. (1962): Bonnom de Barcelone, in: Études d'orientalisme dédiées à la mémoire de Lévi-Provençal, vol. 2, Paris, pp. 683–693.
- Richarté-Manfredi, Catherine / Garnier, Nicolas (2021): Denrées et marchandises circulant à la fin de la période proto califale au large de la Provence. Questions de conteneurs et de contenus, in: Marianne Brisville / Audrey Renaud / Núria Rovira (eds.): L'alimentation en Méditerranée occidentale aux époques antique et médiévale. Archéologie, bioarchéologie et histoire, Aix-en-Provence, pp. 27–36.
- Richarté-Manfredi, Catherine (2023): Ships and Islamic products discovered off the Provençal coast. Physical evidence of the trade in the western Mediterranean Sea (end of 9th-10th C. AD), in: Philippe Pergola / Gabriele Castiglia / Elie Essa Kas Hanna / Ilaria Martinetto / Jean-Antoine Segura (eds.): Perchement et réalités fortifiées en Méditerranée et en Europe (Vème-Xème siècles), pp. 28–38.
- Romano, David (1991): Les juifs de Catalogne aux alentours de l'an Mil, in: Xavier Barral i Altet / Dominique Iogna-Prat / Anscari Manuel Mundó / Josep M. Salrach / Michel Zimmermann (eds.): Catalunya i França meridional a l'entorn de l'any Mil, Barcelona, pp. 317–331.
- Romera Manzanares, Ana María (2024): Crónica del moro Rasis. Versión castellana cuatrocentista. Estudio, edición y notas, Madrid/Frankfurt on Main.
- Ruiz-Domènec, José Enrique (2006): Quan els vescomtes de Barcelona eren. Història, crònica i documents d'una família catalana dels segles X, XI, i XII, Barcelona.

Vallvé Bermejo, Joaquín (1977): Notas de metrología hispano-árabe II. Medidas de capacidad, in: *Al-Andalus* 42, pp. 61–121.

Vallvé Bermejo, Joaquín (1982): La agricultura en Al-Andalus, in: Al-Qantara 3, pp. 261–297.

Wickham, Chris (2023): The Donkey and the Boat. Reinterpreting the Mediterranean Economy, 950–1180, Oxford.

Zeumer, Karl (ed.) (1902): Leges Visigothorum. MGH Leges Nationum Germanicarum I, Hanover/Leipzig.

THOMAS FREUDENHAMMER, M. A. Humboldtstraße 34 14193 Berlin freudenhammertom@aol.com