## PART 4

Granada across the Borders. Economic, Diplomatic, Scientific and Intellectual Life

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#### CHAPTER 11

# The Economic Sources and Resources of Islamic Granada (2nd–9th/8th–15th Centuries)

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## 1 Introduction

This paper intends to examine the role of the political structure in the organization of cities, including the enactment of legislative regulations. The main focus of interest will be on the implementation of less invasive measures, which contributed to the development of certain aspects of urban economies and favored the development of some economic trends that had been present in Granada from the moment of its foundation.

In general, we are poorly informed about the economic structure that supported the taifa kingdoms which emerged with the dissolution of the caliphate in the 5th/11th century. In principle, there should be cause for optimism, given the number of testimonies and accounts left by a large number of geographers, travelers, merchants, agronomists, and even the officials in charge of the control and orderliness of the transactions that took place in the  $s\bar{u}q$  or market.<sup>1</sup> However, this apparent clarity has not been reflected in the number or quality of basic analyses, and our knowledge of the economy during the central centuries of the Andalusi period is still poor: a state of affairs which Pedro Chalmeta denounced many years ago.<sup>2</sup> Unfortunately, the situation has changed little since then. At any rate, and without trying to justify the situation, it is necessary to consider that the information contained in the aforementioned accounts is often general and superficial, and it reflects the fact that the interest of the author's in these questions was merely incidental. The sources available are, therefore, an imperfect foundation on which to build a systematic analytical argument. In general, it is difficult, with the material at our disposal, to paint a comprehensive picture and to detect and outline clear developmental trends.

Granada is, in this regard, not an exception. The work undertaken to date has clearly pushed aside specifically economic questions. This disappointing

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<sup>1</sup> A good review of the sources at our disposal concerning commercial spaces in al-Andalus can be found in a magnificent recent work by Chalmeta, *El zoco medieval*.

<sup>2</sup> Chalmeta, "Balance. Renovación-ampliación del cuestionario," pp. 315-39.

situation is in spite of the exceptional nature of the sources, such as the memoires of King 'Abd Allāh (r. 467-83/1075-90),<sup>3</sup> thanks to whom we know the Zirid Kingdom better than any other *taifa*. It is also true that, following the general trend, the information which the memoires provide concerning the economic workings of the kingdom is incidental. As we shall see shortly, archaeology has often helped to advance matters where the written sources have proved less than useful.

There are, in any case, two issues that seem to be certain: first, the creation of Granada was the direct manifestation of the political will of the Zirid monarchy, which created the taifa of Granada. Due to its lack of solid political foundations, well-defined and stable borders, and the character of the reigning dynasty—whose legitimacy was not accepted in all territories despite the family's impeccable dynastic credentials-some even hesitate to call Zirid Granada a state.<sup>4</sup> In any case, the creation of the city, probably over the remains of an older settlement, was a conscious decision made by this North African dynasty.<sup>5</sup> These actions, however, could not have been undertaken without the cooperation of the local elite. The creation of the city is thus the result of a consensus with the inhabitants of Ilbīra, who decided to follow the initiative of the new leaders, abandoning the old city and settling in the new one. In a pattern that was to become common in al-Andalus, these agreements with the local elite put the new rulers in control of the region. In Granada, however, this episode was idiosyncratic because of the importance of the Jewish elite, who soon became a source of major support for the king and the managers of one of the most basic functions of political power: fiscal control.<sup>6</sup> This volume contains several works which examine this aspect of the city in detail, and thus we can now focus on other issues.

The other incontrovertible fact about the foundation of Granada is that the location was chosen on the basis of its economic projection, essentially, but no longer exclusively, in terms of agricultural potential. In fact, the choice of location is, in itself, the earliest and most significant sign of the role played by the political superstructure in the city's economic configuration. Let us explain this in as much detail as the sources allow.

<sup>3 &#</sup>x27;Abd Allāh, Mudhakkirāt al-amīr 'Abd Allāh, trans. Lévi Provençal and García Gómez, El siglo XI en ι<sup>a</sup> persona.

<sup>4</sup> Guichard and Soravia, Los reinos de taifas.

<sup>5</sup> Malpica, "Granada, su Vega y más allá," pp. 396–407; Sarr, La Granada zirí (1013–1090).

<sup>6</sup> Guichard and Soravia, Los reinos de taifas.

#### 2 Agricultural Resources

The famous text in which King 'Abd Allāh explains the choice of location for the city of Granada explicitly alludes to the wholesomeness of the region, which was rich and would guarantee the survival of the city.<sup>7</sup> Therefore, despite the pessimistic comments by al-Sagatī (d. 7th/13th century), who recorded the past poverty of the region during the caliphate, as compared with the region of Almería,<sup>8</sup> "which was at the time the beginning and end of shipping routes, home to merchants and travelers,"9 we know that the region that surrounded the city, and the city itself, enjoyed a certain degree of prosperity, as confirmed by the king of Castile, Alfonso VI (r. 1072–1109).<sup>10</sup> This prosperity was largely based on the intensive cultivation of the land. It is likely that the irrigation networks which characterized the Vega of Granada in later centuries started to be developed during this period. In this regard, we may invoke the testimony of early witnesses, such as al-Rāzī (d. 379/989), who describes its fertile and well-managed agricultural landscape.<sup>11</sup> According to al-Udhrī (d. 478/1085), in the 3rd/9th century the region surrounding the future city of Granada was divided into 14 agricultural districts (probably established on the basis of fiscal criteria), which is an interesting indication of the potential of the area as a source of wealth and, consequently, taxes.<sup>12</sup> The tax accounts mentioned by

<sup>&</sup>quot;... they admired a beautiful plain full of streams and groves and irrigated by the Genil River [*Wādī anīlī*], which descends from Sierra Nevada They also admired the hill on which the city of Granada is today, and they understood that this hill was the centre of the region, as it towered over the farmlands [*al-Faḥṣ*] ... The place captivated them, because they soon realised that it had all the advantages, and also that it was located in the centre of a very rich region and near to all settlements": Lévi Provençal and García, *El siglo XI en 1<sup>a</sup> persona*, pp. 102–03.

<sup>8 &</sup>quot;In the *arrabal* [of Madīnat Ilbīra] lived an *alcahacero*, a famous and dissolute skirt chaser who, when he got old and was abandoned by all, regretted his former habits and took residence in his shop. Owing to the isolation of the shop and his poverty and that of his region, very often he stayed in the shop overnight": Chalmeta, *Kitāb fī adāb al-hisba*, pp. 384–85.

<sup>9</sup> Ibid., p. 385.

<sup>10 &</sup>quot;You lied to me when you told me about the weakness of Granada ... Everything I have seen, be it the level of organisation or the wealth in the city, discredits your words": Lévi Provençal and García, *El siglo XI en 1ª persona*, p. 186.

<sup>11 &</sup>quot;Qastiliya, which is the chief place of the district of Elvira, and so the territory has no parallel in the world for fertility and excellence, except for the Guta de Damas": Lévi Provençal, "La description de l'Espagne d'Ahmad al-Rāzī," pp. 51–108, especially p. 66.

<sup>12</sup> Some of these districts have not yet been identified, such as Babţ.r, al-Kanā'is, N.g.r.nis, Rub al-Yaman, Bālus, Balyarnis, Awnil, and Tibal Banī Hud. Those that have include: Quempe, Caparacena, Alfacar, Cogollos, Alhendín, and Lachar: Sánchez, "La cora de Ilbīra," pp. 55–56.

al-'Udhrī provide interesting pieces of information: for instance, that the *cora* of Ilbīra yielded much more tax than all the rest combined during the reign of Umayyad emirs al-Ḥakam I (r. 180–206/796–822) and 'Abd al Raḥmān II (r. 206–38/822–52). During the rule of al-Ḥakam I, the collection in the *cora* or province was 152,603 dinars, compared to the 141,199 from the *coras* of Morón, Niebla, Sidonia, Seville, and Algeciras, which made the region of Granada the main fiscal focus of al-Andalus, with the exception of Cordova.<sup>13</sup>

Beyond these generic accounts and the lists of agricultural products harvested in the region, the most reliable witness to the economic potential of the *Vega* of Granada during this period is the developing irrigation network. Some evidence suggests that irrigation networks existed in embryonic form in earlier periods, but it was in the 5th/11th century that they began expanding until they covered the whole *Vega* by the 7th/13th century. By that time, intensive irrigation agriculture was being systematically practiced in the farmlands of the *Vega*; it was an agricultural regime conducive to high productivity and the generation of a significant surplus.

A well-known theory suggests that most cities emerge spontaneously as a result of the evolution of the previous rural settlement pattern and the crystallization of ways to control agricultural surplus.<sup>14</sup> This approach is to some extent supported by Ibn Ḥawqal (d. 4th/10th c.) who claimed the following:

[In al-Andalus] there are no cities that are not properly populated and surrounded by a vast rural district or a whole province with numerous villages and laborers possessing prosperity, both a big or small cattle, good tools, beasts of burden, and fields.<sup>15</sup>

This is not to deny the reversal of roles that generally follows shortly afterwards, when the city begins imposing its influence on the countryside. The main purpose of urban structures was to appropriate some of the agricultural surplus by way of taxation; this is easier when agricultural activity is well-organized. On the other hand, the economic growth achieved on this basis needs to be protected by the promotion of a diversified productive sector and exchange dynamics, which will largely take place in cities. Antonio Malpica's words are revealing in this regard:

<sup>13</sup> Ibid., pp. 24 and 68.

Malpica, "El paisaje rural medieval," pp. 227–42. idem, "Antes de Madinat Ilbira," pp. 389– 99, also formulated theoretically by the same author in *Las últimas tierras de al-Andalus*, p. 383ff.; Olmo Enciso, "De Celtiberia a šantabariyya," pp. 39–62.

<sup>15</sup> Ibn Hawqal, *Configuration de la terre (Kitāb surat al-ard)*, trans. Kramers and Wiet, pp. 115–16.

Owing to the existence of an urban nucleus, exchange could be carried out in a stable and safe environment ... After the stabilization of urban life, the city started exercising its influence on the countryside ... This was caused by the growing demand of the urban market, which was not merely a consumer, but also a producer and a redistributor.<sup>16</sup>

Therefore, the initial stage of the urbanization of al-Andalus relied on economic growth based on increasing agricultural productivity. This needs to be analyzed in further detail, but this sequence of events finds indirect support in the way tax-collection systems were organized, as reflected in the (admittedly scarce) surviving fiscal records from the caliphate period.<sup>17</sup> Concerning Granada, agricultural growth appears to be clearly related to the implementation and development of irrigation systems. However, in Granada this issue has only been studied with regard to the region of the Alpujarra, where is evidenced in the fiscal registers recorded by al-<sup>c</sup>Udhrī and studied by Patrice Cressier.<sup>18</sup> At any rate, the creation of Ilbīra, the earliest urban settlement in the region, is considered to be the result of a conscious policy by some elite rural sectors in connivance with the political superstructure of the period: such groups were always eager to create cities where there were none.

A recently defended doctoral dissertation explores the increasingly close relationship between the city of Granada, the development of the irrigation network, and the associated intensive agricultural regimes which turned the *Vega* into the city's economic powerhouse.<sup>19</sup> This hypothesis suggests that, throughout the 4th/10th and 5th/11th centuries, the new arrivals precipitated the construction of small irrigations systems,<sup>20</sup> as in Loja.<sup>21</sup> The growing complexity of these irrigation systems drove the economic expansion of the *Vega* of Granada, in a process that was probably directed and controlled from the capital, which was particularly well-located for this purpose.<sup>22</sup>

The hypothesis is worth exploring further. In any case, the evidence is clear concerning the growth of existing settlements and their increasing prosperity, which was related to the implementation of irrigation agriculture, perhaps not as the only, but certainly as the main, economic activity.

<sup>16</sup> Malpica, Las últimas tierras de al-Andalus, p. 389.

<sup>17</sup> Chalmeta, "Balance. Renovación-ampliación," pp. 330–34.

<sup>18</sup> Cressier, "El castillo y la división territorial en la Alpujarra," pp. 7–48.

<sup>19</sup> Martínez, La Vega de Granada, 2015.

<sup>20</sup> Martínez, *La Vega de Granada*, pp. 837–38.

<sup>21</sup> Jiménez, Los regadíos tradicionales, pp. 223–41 and conclusions.

<sup>22</sup> Martínez, La Vega de Granada, p. 840.

The key question, which has in fact been previously asked, is who set up these complex systems? I think that the role which some contemporary authors assign to peasant groups in the formation of the urban center and its hinterland must have been significant, but we should also stress that the economic and political elite, who were represented in Granada by recent Berber arrivals, soon took control of the irrigation networks.

Years ago, Bolens drew links between the process of political atomization, which led to the emergence of the *taifa* kingdoms, the reduction of taxes, and the reorganization of fiscal structures. These changes resulted in the growth of the agricultural sector, which became apparent from the 5th/1th century onwards.<sup>23</sup> In addition, Bolens suggested that the *taifa* kings may also have played a substantial part in stimulating agricultural production, especially concerning certain sectors which were particularly adaptable to market-based economic practices.

During these periods, and especially in the palatial agronomic schools, there developed the new knowledge and techniques that had arrived in al-Andalus from other Islamic territories.<sup>24</sup> The efforts to acclimatize new plant species chiefly focused on market crops or on products that were necessary for the manufacture of marketable goods, such as mulberry trees, which were necessary for the manufacture of silk, cotton, flax, and products used in the refinement of sugar. There is a clear trend towards the creation of specialized areas for the cultivation of these crops.

One of the most interesting aspects of Ilbira's tax-record, dated to the first half of the 3rd/9th century, is the list of products mentioned in al-'Udhrī's account. The record demonstrates that commercial products were already important for the region during the emirate, and that this commerce involved the substantial production of silk and dyes (for instance safflower),<sup>25</sup> minerals, and oil.<sup>26</sup> Al-'Udhrī's account does not specify the places where in the *cora* of Ilbīra each product was grown; according to several geographers such as al-Istakhrī<sup>27</sup> (d. 345/957) or al-Bakrī (d. 487/1094), these products were characteristic of Sierra Nevada, which "was rich in different species of wonderful fruit, [while] the best silk and linen—better than those produced in Fayūm

<sup>23</sup> Bolens, Agrónomos andaluces de la Edad Media, p. 27.

<sup>24</sup> Watson, Innovaciones en la agricultura.

<sup>25</sup> García, "Las plantas textiles y tintóreas en Al-Andalus," pp. 436–37.

<sup>26</sup> Sánchez, "La cora de Ilbīra," p. 24.

As I have not been able to consult the original text, I am using the information provided by Bolufer, "La geografía de la Península Ibérica," pp. 109–72, especially pp. 122–27.

[Egypt]—can be found easily in its towns.".<sup>28</sup> In the early 7th/13th century, at any rate, al-Himyarī (d. 726/1325–26) mentions that:

silk from the plain of Elvira could be found throughout the country and was also exported abroad. The linen from the region was of better quality than the Egyptian type, and the crop was so rich that the product was exported to the most distant Islamic countries<sup>29</sup>

Regardless of whether silk was produced in the *Vega* as early as in the 3rd/9th century,<sup>30</sup> it is clear that, due to its geographical position, the city was being used to channel a significant proportion of the region's productive efforts for exchange.

It is likely that the *taifa* kings and founders of experimental agronomic schools were also behind the introduction of these crops, sometimes in their own personal properties. Regrettably, there is no direct evidence for this in the Zirid Kingdom of Granada; we have to follow the example of the neighboring *taifa* of Almería where, according to al-'Udhrī, the royal gardens were used for experimenting with and adapting new plant species.<sup>31</sup> There is, in contrast, direct evidence of the presence in Granada of al-Tighnarī (d. *c.* 480/1087) one of the foremost Andalusi agronomists, although he ultimately worked for the Banū Ṣumādiḥ in Almería, where he carried out different agronomic experiments.<sup>32</sup> Also, we know of the existence of a series of *almunias* (country villas) in Granada, which were part of the personal property (*mustajlas*) of the Zirid monarchs,<sup>33</sup> and, according to al-Muqqadasī, operated as large agricultural properties from as early as the 4th/10th century.<sup>34</sup> These statements

<sup>28</sup> Abū 'Ubayd al-Bakrī, Geografía de España, trans. Vidal Beltrán, pp. 23–24.

<sup>29</sup> Maestro, *Al-Himyari*, p. 58.

<sup>30</sup> López de Coca, "'Morus nigra' vs 'Morus alba'," pp. 183-99.

<sup>31 &</sup>quot;Outside Almería, Al-Mu'tasim built a beautiful garden and a strange palace. Said park was used to cultivate both commonly-known and exotic plants, such as different varieties of banana and also sugar cane": Sánchez, "La cora de Ilbīra," p. 45.

<sup>32</sup> García, "Al Tignarī y su lugar de origen," pp. 1–11.

<sup>33 &</sup>quot;The overseer of my personal property [mustajlaş], Ibn Abī Lawlā, in order to stress his personal authority": Lévi Provençal and García, El siglo XI en 1ª persona, p. 277. Concerning this sort of property, see Molina, "El Mustajlas Andalusí"; and idem, "Más sobre el Mustajlas nazarí."

<sup>34 &</sup>quot;Gharnāța is on a river near which there is an *almunia* (*al-munya*), thirteen miles long and property of the king. There all kind of fruits grow, all of them wonderful. The land is plain and covered in agricultural plots": Al-Muqaddasī, *Aḥsan al-taqāsīm*, trans. Garcia, "Cultivos y espacios agrícolas," pp. 17–37, especially p. 20; Boloix-Gallardo, "Las almunias nazaríes."

cannot be taken at face value, but it is plausible that these areas were used in agronomic experiments. At any rate, it is known that, during the Nasrid period, they were sown with market crops. The Zirid dynasty also took part in this process, reorganizing or reusing existing irrigation systems for their own benefit, and thus becoming part of the economic system. In consequence, the city of Granada and its elites took advantage of the situation and used, if not controlled, the expansion of irrigation systems to ensure the supply of their suburban properties, which included royal and aristocratic gardens and *almunias*.<sup>35</sup>

The city lived off the countryside and grew at its expense. At the same time, the agricultural countryside, especially the *Vega* of Granada, was deeply influenced by the proximity of a strong city and political and economic elites capable of steering the economy in a new direction. The orientation of agriculture towards market crops was the first symptom of a totally new economic approach; the protection of industrial and exchange activities was another key feature of these new times.

#### 3 Trade

According to Zirid King 'Abd Allāh, the new city of Granada engaged in commercial activities from the very moment of its creation. Some time ago, the conclusions of a study which examined the presence and distribution patterns of pottery in the hinterland of *Madīnat Ilbīra* were quite outspoken concerning the integration of the territory of Granada into a well-defined Andalusi commercial network as early as the beginning of the 4th/10th century.<sup>36</sup>

Although I do not agree with these audacious claims with full confidence, I admit that some evidence supports the commercial involvement of the region where *Madīnat Gharnāța* was to be built. At any rate, it seems likely that Ilbīra was the center of a local exchange network,<sup>37</sup> a role which is—as noted when exposing the origins of the city during the caliphate—consubstantial to the urban phenomenon in medieval Islam. In fact, the archaeological excavation of the site has led to the discovery of the industrial and commercial urban quarters<sup>38</sup> in a location which could match the neighborhood (*arrabal*) used by al-Saqațī as background for his narrative.<sup>39</sup> Ilbīra was a small center

<sup>35</sup> Martínez, La Vega de Granada, p. 838.

<sup>36</sup> Carvajal, La cerámica de Madinat, p. 377.

<sup>37</sup> Chalmeta, *El zoco medieval*, p. 362.

<sup>38</sup> Martín, Mattei, Jiménez, and Carvajal, "Actuación arqueológica de urgencia en el Pago de los Tejoletes."

<sup>39</sup> Supra note 6. [modify and check in final proofs]

compared to the great hubs of exchange of the caliphate, but it was still fairly active and capable of articulating its immediate hinterland. The distribution of ceramics manufactured in *Madīnat Ilbīra* is, in this regard, revealing.<sup>40</sup> These ceramics have been found in al Rāzī's *ḥiṣn Gharnāṭa* ("castle of Granada"), the settlement which later expanded to become the city of Granada. The discovery in this settlement of ceramics which are reminiscent of those produced in Ilbīra argues for the prosperity of the inhabitants of the *ḥiṣn* and for the ability of Ilbīra to dynamize local exchange.<sup>41</sup>

The favorable local conditions were repeatedly highlighted by Arab geographers, who constitute a valuable source of early evidence.<sup>42</sup> One of the region's key advantages was its strategic location. It was placed at a junction of routes open to the south and the coast: the north, along the corridor created by the Cubillas river; the west and Loja; and the east, over the pass of La Mora, towards Guadix. This location turned the city into the node in which the dynamic economy of different areas converged in order to supply Granada's *aswāq* or markets, which were already present in the city in the 5th/11th century.<sup>43</sup> The merchant classes were, from the start, a significant factor in the political and economic fabric of the city, and were even capable in certain circumstances of standing up to monarchic demands, as we can see in the following words by 'Abd Allāh:

The merchants and the rest of the population were hoping to join the victorious faction. On the other hand, most had abandoned the city, saying: 'Why should we have to come under siege?' Here, as in any other city, there are merchants and artisans. The subjects were generally in favor of this policy and, thirsty for freedom, for not having to put up with any tax other than the *azaque* and the tithe.<sup>44</sup>

Of particular interest are the city's dealings with the coastal area. The contacts largely took place along the natural routes created by the Lecrín valley and the Alhama-Velez Malaga corridor, and gave the city a maritime projection, especially via the active port of Almuñecar,<sup>45</sup> which was the city's main gateway to North African commerce. Granada was an important economic asset, something which the Zirid dynasty understood from an early date, as revealed

<sup>40</sup> Carvajal, La cerámica de Madinat.

<sup>41</sup> Malpica, Las últimas tierras de al-Andalus, pp. 394–95.

<sup>42</sup> Constable, *Comercio y comerciantes*, p. 169.

<sup>43</sup> Levi Provençal and García, *El siglo XI en 1.ª persona*, pp. 283–84.

<sup>44</sup> Ibid., pp. 305–06.

<sup>45</sup> Gómez and Fábregas, "La costa de Granada," pp. 31–108, especially pp. 48 and ff.

by the way they prioritized its development from the start.<sup>46</sup> In fact, the whole coastal area was by this stage a focus of intense economic activity, especially the export of silk and dried fruit from Almuñécar,<sup>47</sup> the sugar cane mentioned by al-Rāzī in connection with nearby Salobreña,<sup>48</sup> and the important mining resources mentioned by al Bakrī<sup>49</sup> in relation to Paterna, which has been identified with the hamlet of Maraute, in modern Torrenueva.<sup>50</sup>

In any case, the coast of Granada never seems to have played a substantial role in the major Mediterranean-wide maritime systems that connected the East and the West. The Genizah, the archive of the Jewish community in Cairo, is our main source of material for reconstructing trade dynamics in the medieval Mediterranean before the 5th/11th century.<sup>51</sup> The documents repeatedly mention Seville, Almería, and Denia as key nodes for East-West commerce. This does not mean that the Zirid coast was totally isolated though: Ibn Ḥawqal, for example, stressed in 354/976 the close links that existed between the coast of Granada and some harbors in the Maghreb, such as Mahdiya, Tabarka, Tenes, and Oran.<sup>52</sup>

Sometime later, al-Bakrī drew specific attention to the links existing between Malaga, Velez Malaga, Jete, Almuñecar and Salobreña, and other Andalusi ports with North African harbors.<sup>53</sup> It would be extremely interesting to examine in more detail the relationship between these coastal areas and their productions—which were clearly destined for foreign markets—and the city of Granada. In this regard, it would be necessary to examine the role played by the important Jewish community, which is no minor issue since, according to our main witness, most of the original population of the city was Jewish.<sup>54</sup>

<sup>46</sup> Gómez, El poblamiento altomedieval, pp. 89-93.

<sup>47</sup> Catalán and de Andrés, Crónica del Moro Rasis, p. 29.

<sup>48</sup> Ibid., p. 28.

<sup>49 &</sup>quot;Good and pure zinc is found in the coast of Elvira in a town called Paterna (*Baṭarna*); it is the purest zinc and the best for the manufacture of copper": Abū 'Ubayd al-Bakrī, *Geografía de España*, p. 39.

<sup>50</sup> Al-Idrīsī, Los caminos de al-Andalus, trans. Abid Mizal, p. 323; Gómez, "El yacimiento de 'El Maraute'," pp. 33–37.

<sup>51</sup> Goitein was responsible for editing and examining a large number of these records. See Goitein, *Letters of Medieval Jewish Traders*; and for analysing in detail the historiographical potential of the archive, see Goitein, *A Mediterranean Society*. For her part, Constable made abundant use of these records in her analysis of Andalusi trade: Constable, *Comercio y comerciantes*.

<sup>52</sup> Ibn Hawqal, *Configuration de la terre*, pp. 67, 70, 73 and 74 respectively.

Al Bakrī, *Kitāb al masālik*, trans. Slane, *Description de l'Afrique septentrionale*, pp. 179–97.
Lewicki, "Les voies maritimes de la Méditerranée," pp. 439–69.

<sup>54 &</sup>quot;Most of the inhabitants of Granada and all the tax officials ['ummāl] were Jewish": Lévi Provençal and García, El siglo XI en 1.ª persona, p. 119.

Indeed, according to Guichard and other authors, one of the peculiarities of the Zirid Kingdom was the strategy followed by the new Berber dynasty of seeking complicity and cooperation from the Jews of Granada.<sup>55</sup> We do not know enough about the economic activities of the Jews, other than the fact that they were the economic elite of the kingdom.<sup>56</sup> To date, no evidence has been discovered to suggest that, like other Jewish communities around the Mediterranean, the Jews of Granada had a significant international projection, but it is also true that the Jewish vizier Samuel ibn Nagrela's (d. 459/1066) political influence was considerable, since he is one of the few Jews from Granada who is mentioned in the Genizah,<sup>57</sup> and he likewise took part in commercial ventures.<sup>58</sup>

In any case, we can confirm, albeit only in the most general terms, that commerce played an important part in the city's economic structure right from the start. The new city soon took over the role of a local exchange hub, replacing *Madīnat Ilbīra*, while its regional relevance grew owing to its strategic position at the junction of a wider range of communication routes, as described by al-Idrīsī (d. 560/1164–65). The Sicilian geographer describes 6th/12th-century central al-Andalus as a well-connected territory, with Granada at the center of a communication network that reached other important centers such as Cordoba and Jaen,<sup>59</sup> as well as Murcia, Almería, and Malaga.<sup>60</sup> This does not mean that the city carried much weight yet in the international routes that incorporated al-Andalus, but it is undeniable that Granada was progressively becoming more and more important.

## 4 Crafts

Within this general context, it is possible that the Zirid monarchs actively promoted other economic activities in the same way that they had encouraged certain agricultural practices. This would have a considerable effect not only on the economic structure of the kingdom—driven once and for all to throwing its lot in with trade—but also on its urban geography.

<sup>55</sup> Guichard and Soravia, Los reinos de taifas.

<sup>56</sup> Ibn Nagrela's family, for example, "possessed many lands and had the monopoly on tax farming": Lévi Provençal and García, *El siglo XI en 1<sup>a</sup> persona*, p. 126.

<sup>57</sup> Goitein, A Mediterranean Society, vol. 4, p. 169.

<sup>58</sup> Constable, *Comercio y comerciantes*, p. 106.

<sup>59</sup> Al-Idrīsī, Los caminos de al-Andalus, p. 85.

<sup>60</sup> Ibid., pp. 85–90.

The active participation of the elites from other *taifas* in commercial ventures is a well-known fact.<sup>61</sup> In Denia, for example, the monarch is known to have taken part in trade from as early as the mid-5th/11th century, as revealed by the Genizah documents.<sup>62</sup> Almería constitutes another example: there, ships belonging to a high official, the governor of the city and captain of the Almoravid fleet, Muḥammad ibn Maymūn, are attested from the 520s/1130s.<sup>63</sup>

There is no direct evidence for the direct involvement of the Zirid dynasty in commerce, which is reasonable since, as previously noted, the region was not part of the major trade circuits in al-Andalus. It is, however, possible to detect a strategic drive behind actions taken in support of certain economic activities which, still incipient in the 5th/11th century, were to be crucial for the future development of the city. These activities had an increasingly prominent place in the urban geography of Granada, especially from the late 5th/11th century onwards. First, there is some connection between the creation of spaces which became central to the urban geography of the city and the presence of royal property.

The flat area (currently Plaza de Bibarrambla) on the right bank of the Darro River—the second of the water courses that determined the topography of the city-was an open expanse that surrounded the recently-built aljama mosque during the Zirid period. In Nasrid times (7th-9th/13th-15th centuries), this area became the center of the medina and the commercial heart of the city, owing not only to the presence of commercial quarters, but also of major structural complexes related to international exchange. Such exchange was, by these final centuries of the Middle Ages, fully integrated into the State structures of the Nasrid Kingdom and its capital Granada.<sup>64</sup> These structures include the grain warehouses (alhondigas), some of which had been erected by international business concerns—like that of the Genoese, known as the fundug al-Ŷanubīnīn in the Arabic sources—while others, such as the Alhóndiga Jadīda, the modern Corral del Carbón, were built by the Nasrid monarchs.65 This was also the location of the silk market (*alcaiceria*), where all the silk produced in the kingdom, as well as other products, was sold. This institution, therefore, played an active role in international trade and the collection of its

<sup>61</sup> Constable, *Comercio y comerciantes*, pp. 144 ff.

<sup>62</sup> Ibid., pp. 145–46.

<sup>63</sup> Ibid., p. 147.

<sup>64</sup> Torres, "Plazas, zocos y tiendas"; Seco de Lucena, *La Granada del siglo XV*. The commercial spaces of Nasrid Granada are currently being explored, and interesting results are beginning to emerge. Jiménez Roldán, "Una aproximación al comercio," 151–77.

<sup>65</sup> Torres, "Las alhóndigas hispanomusulmanas."

associated revenue.<sup>66</sup> All these buildings were located in the urban heart of Granada and bore witness to the commercial projection of the city. It is then crucial to recognize the influence that these spaces were to exercise upon the very definition of the city of Granada in the future.

Looking back again at the 5th/11th century, this area was then occupied by an almunia owned by the Zirid Kingdom, as stated by 'Abd Allāh, who claimed that this land had belonged to the family at least from the time of his ancestor Bādīs.<sup>67</sup> This occupation has been confirmed by the archaeological excavations recently carried out under the Palace of the Madraza, near the cathedral,68 which increases the plausibility that the whole area was under the direct control of the Zirid family. This would explain the decision to build the aljama mosque in that exact location, as this would promote urban growth in this sector.<sup>69</sup> It is also likely that the first markets in Granada, which, as previously noted, seem to have emerged early during Zirid rule, were located in this area. Recent works have associated this zone with the well-known Nasrid  $s\bar{u}q$  of Bab al Masdà; this semi-rural itinerant market, characteristic of newly created cities, was celebrated every Thursday.<sup>70</sup> The existence in Granada of this kind of  $s\bar{u}q$  at a later date has been attested near the Elvira Gate. Finally, the archaeological works undertaken in 1996 on the plot of land formerly occupied by the offices of the newspaper Diario Patria, which today hosts the José Guerrero Museum, discovered what appears to have been a commercial building dated to the 5th/11th and 6th/12th centuries.<sup>71</sup>

For our purposes, evidence for political intervention goes beyond the promotion of a certain area to become the commercial and urban center of the new city. This promotion can also be traced via the indirect, but crucial, support granted to some productive sectors which had a distinct commercial projection and reinforced the urban nature of Andalusi cities: craft production.<sup>72</sup>

The earliest evidence for craft production in Granada was found on the left bank of the Darro River, which later became one of the industrial powerhouses of the city. A series of pottery kilns found under the extant Casa de los Tiros

<sup>66</sup> Torres, "Alcaicerías"; Fábregas, "Aprovisionamiento de la seda."

<sup>67 &</sup>quot;It was the new sultan's (Bādīs) habit to come out to a place called the Rambla (*al-Ramla*), near which there was an *almunia* with two gates, which is where his father used to hold his government councils": Lévi Provençal and García, *El siglo XI en 1ª persona*, p. 102.

<sup>68</sup> Malpica and Mattei (eds.), *La madraza de Yusuf I*.

<sup>69</sup> Malpica, "Granada ciudad islámica," pp. 195–208.

<sup>70</sup> Jiménez, "Una aproximación al comercio," pp. 171–72.

<sup>71</sup> Malpica, "La Madraza y la ciudad de Granada," pp. 30–31.

<sup>72</sup> Acién, "La formación del tejido urbano," pp. 11–32.

must date, according to the ceramic contexts, to the late 5th/11th century.<sup>73</sup> It should be stressed that the most important craft industries found to date in the city, such as pottery and silk textile production, require a constant and abundant water supply. Regarding the textile industry, the facilities for tanning and dyeing, dated later, have been found in the area near the river Darro, which would easily meet this need. However, the pottery workshops were somewhat further away, which means that water must have been supplied by means of channels. Indeed, one branch of the Acequia Gorda, known as Acequia de las Tinajas, reaches this area, therefore it is likely that its main purpose was the supply of the pottery workshops. We know that this branch of the Acequia Gorda shaped one of the city's main thoroughfares, the modern Calle de Santiago (Santiago street), and was at the center of a supply network composed of many transversal channels. The ancillary channels found in the area suggest that this tributary supplied a large urban sector.<sup>74</sup>

It is also worth noting that the date of completion of this branch of the Acequia Gorda remains a matter of controversy. Some authors reject the possibility that it was built in the 5th/11th century.<sup>75</sup> According to Ibn al-Khaṭīb's *Al-Iḥāta* (d. 776/1374), the branch was built on the initiative of the *faqīh* Abū Ja'far Ibn al-Qula'ī, vizier of the Zirid king 'Abd Allāh. According to this same work, another of the dynasty's officials, Mu'ammal, was responsible for the construction of a public fountain at the Potters' Gate (*Bāb al-Fakhkhārīn*).<sup>76</sup> Another theory, however, dates the construction of the branch to much later, not earlier than the second quarter of the 7th/13th century.<sup>77</sup> Should this theory be correct, the water supply to the pottery workshops and the baths that existed in the area in an earlier period require some explanation. This theory is also at odds with the testimony of authors such as Yāqūt (d. 626/1229)—who in the late 6th/12th and early 7th/13th centuries, conveyed a consolidated image of this urban sector<sup>78</sup>—and Ibn al-Khaṭīb.

Beyond this chronological discussion concerning the channel, the support provided for this growing suburban area, which was chiefly industrial in nature and fundamentally involved in pottery production, seems clear. Water, once

<sup>73</sup> Rodríguez, Granada arqueológica, pp. 121 ff.

<sup>74</sup> Álvarez, "Aproximación a la configuración," p. 102.

<sup>75</sup> Malpica, "Arqueología hidráulica,"; idem, "La época almohade en Granada," especially p. 136.

<sup>76</sup> García, El análisis evolutivo del territorio, ch. 12, p. 15.

<sup>77</sup> Jiménez, "Sistemas hidráulicos de la Vega de Granada."

<sup>78 &</sup>quot;There is another river called *Sanŷal* (Genil), which is the source of an *acequia* that runs across the other half of the city, supplying many houses:" 'Abd al-Karim, "La España musulmana," p. 229.

#### THE ECONOMIC SOURCES AND RESOURCES OF ISLAMIC GRANADA

more, as pointed out by Martínez Vázquez, is the key factor in the economic articulation of the early city.<sup>79</sup> In fact, from the moment when irrigation was chosen as the key economic practice in the 6th/12th century, the city began to grow at a much faster pace. This consolidation of the city as an industrial and commercial center was accompanied by a trend which, although tentative at first, was to become a key element in the developing social and economic nature of the Nasrid Kingdom: this was the direct involvement of the Nasrid crown in market-oriented production activities.<sup>80</sup>

I shall conclude with a brief exploration of the growing intensity of these trends.

### 5 The Economic Growth of the City

The growth of urban economic activities (craft production, trade) seems to become faster during the Almohad period.<sup>81</sup> The political logic of this is clear: the Almohads were interested in controlling and taxing the traditional commercial links between al-Andalus and other regions. On one hand, from the Almoravid period onwards, the relationship between al-Andalus and the West was more peaceful than warlike and trade treaties were signed, often on the initiative of the Almoravids themselves,<sup>82</sup> with Pisa first and then with Genoa during the Almohad period.<sup>83</sup> On the other hand, Remie Constable has pointed out that the contact between al-Andalus and North Africa was restricted to a few harbors, as revealed by a comparison of Ibn Ḥawqal's and al-Idrīsī's accounts. This does not mean that the volume of exchange decreased, far from it, but rather a more militarized approach to the control of sea routes, as a defense against the Christian advance,<sup>84</sup> came back into force. There was then an attempt to tax these exchange dynamics more effectively and thus take full advantage of the growing commercial sector.<sup>85</sup>

The ties between Islamic and Latin markets have a clear archaeological reflection, for example the Islamic pottery discovered in European and,

<sup>79</sup> Martínez, La Vega de Granada, p. 849.

<sup>80</sup> Fábregas, "Actividad comercial de los reyes nazaríes," pp. 171–90.

<sup>81</sup> Malpica, "La época almohade en Granada."

<sup>82</sup> Latrie, Traites de paix et commerce, pp. 35 ff.

<sup>83</sup> Fábregas, "Almería en el sistema de comercio," pp. 138–61.

<sup>84</sup> Picard, "La politique navale," pp. 567–84, especially p. 578.

<sup>85</sup> Constable, *Comercio y comerciantes*, p. 38.

especially, Italian contexts, such as in Pisa<sup>86</sup> and Genoa.<sup>87</sup> Berti's detailed reports on the presence of Islamic ceramics in Italy reveal the exponential growth in the number of specimens during the Almohad period.<sup>88</sup> Locally, the new trend is perceptible in changes in the manufacturing process of ceramics from the Almohad period onwards: the shapes became more diversified and the production technology more efficient, which suggests the concentration and specialization of pottery production in the city.<sup>89</sup> The city appears to have smoothly integrated these new productions into the urban fabric, and this would have resulted in the triggering of additional exchange dynamics with the countryside.<sup>90</sup>

In line with this, market-oriented craft activities appear to have received considerable support during this period. The analysis of the evolution of some of the city's suburban areas (*arrabales*), specifically those of *al-Fakhkhārīn* and *Najd*—both located on the left bank of the river Darro, currently occupied by the Realejo district—is of particular interest. The area, which had already benefited from the political support enjoyed by certain craft activities in the past, entered an unprecedented period of urban growth. It was also an area largely owned by the political elites, who were increasingly involved in agricultural, commercial, and industrial concerns.

Some years ago, it was pointed out that this area of Granada underwent considerable growth and assumed a true urban character in the 6th/12th century.<sup>91</sup> In this regard, Antonio Malpica, stressed the largely artisanal nature of the sector.<sup>92</sup> Beyond the material evidence, this expansion also left its mark in the toponymy: the gates of *dabbāghīn* (tanners), *fakhkhārīn* (potters) and *ṭawwābīn* (brick-makers) gave access to the city via these *arrabales*.<sup>93</sup> The progressive relocation of some of the pottery workshops to other areas and the emergence of domestic structures in their place does not detract from the industrial character of the district, as pottery workshops were still abundant. One was found during the excavation of the Palace of the Admiral of Aragón, located in Campo del Príncipe; the excavation attested to the existence of a pottery workshop, later occupied by a cemetery, which progressively crept over

<sup>86</sup> Berti, Pisa. Museo Nazionale di San Matteo.

<sup>87</sup> García, "La ceramica smaltata," pp. 223–50.

<sup>88</sup> Berti, "I rapporti Pisa-Spagna," pp. 241–53, especially p. 242.

<sup>89</sup> Fernández, Tradición tecnológica de la cerámica, pp. 169–74.

<sup>90</sup> García, "Caracterización de una producción cerámica," pp. 139-55.

<sup>91</sup> García, "Ocupación del espacio," pp. 111–37.

<sup>92</sup> Malpica, "La expansión de la ciudad de Granada," pp. 67–116.

<sup>93</sup> Seco de Lucena, "Las puertas de la cerca de Granada," pp. 438–58.

the top of the hill from its original location below.<sup>94</sup> This was not the only pottery workshop to be found in different sectors of the neighborhood.<sup>95</sup>

These activities, although bothersome and to some extent unhygienic, were also taking place in the areas nearest the *madīna*. Despite the constant recommendations that the *hisba* treatises set out (manuals written for the officials in charge of supervising the operation of markets) concerning the location of tanning and dyeing facilities, the city of Granada prioritized these industries' need for a constant and abundant water supply. There was a dyers' quarter (sabbāghīn) which, according to Seco de Lucena, was located alongside that of the tanners', as previously mentioned.<sup>96</sup> In this context, an industrial complex, interpreted as a dyers' complex, was found in Calle de la Colcha, near the Darro;<sup>97</sup> also, the excavation carried out by Loreto Gallegos in 2012 found some remains which have also been related to dyeing in Calle Reyes Católicos, but the full results of this excavation are still awaiting publication and we must thus rely on indirect references.98 We must not forget the tanneries found alongside the river in the 1990s during survey work; only one tannery, however, built by the Nasrid monarchs near the Corral del Carbón, has been excavated to date.<sup>99</sup> Tanning was a key economic activity in Nasrid Granada,<sup>100</sup> and one in which the dynasty was directly involved, as demonstrated by the presence of tanneries in the Alhambra, as Alberto García-Porras has already addressed.<sup>101</sup>

Finally, it has been shown that the area was progressively taken over by agricultural land related to the Almohad Majzen, which later became the property of the Nasrid dynasty. This is not unexpected, and neither is the increasing involvement of the elites in agricultural concerns. According to a recent hypothesis, this involvement was an indirect strategy to consolidate the international trade links with the Christian West. This was, however, an imperfect market, which was too dependent on the support of the State.<sup>102</sup>

<sup>94</sup> Malpica, De Luque Martínez, Álvarez García, "Excavación de apoyo a la restauración," p. 423.

<sup>95</sup> Álvarez, "Aproximación a la configuración urbana," pp. 98 ff.

<sup>96</sup> Seco de Lucena, *La Granada del siglo XV*, p. 81.

<sup>97</sup> Padial and Ruiz, "Memoria científica de la IAU," *apud* Rodríguez Aguilera, *Granada arqueológica*, p. 155.

<sup>98 &</sup>quot;In 2012 Loreto Gallegos Castellón excavated in 12 Calle Reyes Católicos, in the space formerly occupied by the 'Linde' store, part of a dyer's facility, including several cisterns lined with lime.": Vílchez and Cabrera, "Un pleito sobre las tenerías," p. 150.

<sup>99</sup> Orihuela, "Restos de la Granada islámica," pp. 293–309; Malpica, "El río Darro y la ciudad medieval."

<sup>100</sup> Vílchez and Cabrera, "Un pleito sobre las tenerías."

<sup>101</sup> Torres, "Tenería en el Secano de la Alhambra," pp. 434–37.

<sup>102</sup> Malpica, "Las formas de gestión del agua," p. 101.

It is interesting to note that the political elite not only protected some economic sectors, but directly assumed responsibility for increasing the productivity of certain cash crops. Measures taken to assist in this issue included the cultivation of new land, on the initiative of the elites, who appropriated this land on the basis of the Islamic legal principle of land vivification. This issue needs to be examined in more detail, but we do know that some of these properties were used to grow market-oriented crops, such as the sugar cane sown by the Nasrid monarchs on the coast of Granada.

These properties were placed under intensive cultivation regimes, with the introduction of irrigation and the construction of water supply networks and large cisterns. Several of these networks have been noted in the city of Granada. The earliest one to be identified was located in the *almunia*, known as Alcázar Genil. It was built towards the end of the Almohad period on the left bank of the Genil. The system was supplied through a large *acequia* (Tarramonta) and water was redistributed from one of these large cisterns.<sup>103</sup> Also, the directors of the recent excavations in Cuarto Real describe this complex as a "palatial compound, property of the Nasrid Crown, and built earlier than many of the Alhambra palaces."<sup>104</sup>

The epilogue of this process is the brightest chapter in the history of Muslim Granada, a chapter that spans the final centuries of the Middle Ages, when the Nasrid kings were the only Muslim sovereigns left in the Iberian Peninsula. There is clear evidence that the Nasrid crown actively engaged in commercial activities. Archaeology is contributing to outline new areas of agricultural expansion in the city of Granada; these are chiefly irrigated spaces in the urban and suburban sectors. The discovery of a huge cistern with a capacity of over 400,000 liters, built within the city walls, has recently put the area of Alberzana, between the Albayzin and the city wall, in the spotlight. This cistern collected water from the *acequia* or channel of Aynadamar, which was the property of the king, and was used to irrigate land that, during the reign of Nasrid emir Yūsuf I (r. 733-55/1333-54), was assigned to the madrasa.<sup>105</sup> This emphasizes that the construction of the city wall by the Nasrid king also involved the creation of a large irrigated space in Alberzana, and the "vivification" of the land with the charitable purpose of maintaining the *madrasa*. But these measures went far beyond merely meeting an immediate need. They were part of a wholesale strategy to direct the economy of Granada.

<sup>103</sup> Ibid., pp. 109–11.

<sup>104</sup> García and Muñoz, "Un espacio singular en la ciudad nazarí."

<sup>105</sup> Malpica, "La expansión urbana de la Granada nazarí," pp. 133–53.