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GRANADA, BETWEEN THE ZĪRIDS AND THE NASRIDS

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1. Pre-Islamic Granada

Despite the many studies done since the end of the 19th century on the urban evolution of the city of Granada, many unresolved questions still remain and researchers have differing opinions concerning important issues.¹ Numerous, often urgent archaeological excavations have been carried out since the early 1980s that have provided a great deal of new data. However, because of the wide disparity in methodology and quality, compounded by limited press runs and difficult access to original reports, these investigations have cleared up fewer doubts than might be expected after such considerable public and private financial effort.

Archaeological studies have confirmed the existence of a site on top of the hill on the right bank of the Darro River towards the end of the proto-Iberian age in the second half of the 7th century BC. The settlement consisted of rectangular huts protected by a somewhat inconsequential wall. During the 6th century BC, the compound was enlarged, encompassing the neighbourhood known today as the Albayzin between the churches of San Nicolas, San Miguel Bajo and San Jose, and the wall structure was substantially improved. This Iberian *oppidum*, initially called *Ilturir* and later Latinised as *Iliberri*, made use of the slightly steep topography to control the rich lowland area along the Genil River and defend itself. The southern slope, which extended down to the Darro River, was not as steep, making it possible for the settlement to expand in that direction.²

Beginning in the early 2nd century BC, the Iberian population gradually fell under Roman rule. The Ibero-Roman transitional stage was fully completed in the second half of the 1st century BC when the site acquired the legal status of *municipium* and was named *Florentia Iliberritana*. The Romans took advantage of a large section of the town wall and the existing urban area, building a forum and other necessary public buildings there. Specialists in the period believe that the area within the walls eventually spanned 14 hectares.³ Original doubts about the location of the forum have been dispelled by recent studies that confirm that it stood in central upper part of the city, in an area now known as the Carmen de la Concepción, near the street María la Miel, where Juan de Flores excavated in the third quarter of the 18th century.⁴

Urban evolution during the late Roman and Visigoth periods is less clear-cut, since no significant archaeological remains have been identified, although various necropolises have been

¹ This article was written under the auspices of the National R&D&I Plan Ciudades nazaríes: Estructura urbana, sistema defensivo y suministro de agua (HAR2011-30293), coordinated from the Laboratory for the Archaeology and Architecture of the City, EEA-CSIC.

² Andrés Adroher Auroux and Manuel López López, "ILIBERRI: origen y desarrollo de la ciudad ibero-romana de Granada", in Francisco Javier Martínez Medina (ed.), Jesucristo y el emperador Cristiano, Cordoba, Cajasur, 2000, pp. 443-63.

³ Margarita Orfila Pons, Florentia Iliberritana. La ciudad de Granada en época romana. Granada, Universidad de Granada, 2011, p. 119.

⁴ Manuel Sotomayor and Margarita Orfila, "Un paso decisivo en el conocimiento de la Granada romana (Municipium Florentinum Iliberritanum)", in Archivo Español de Arqueología (Madrid), 77 (2004), pp. 73-89. found. However, a series of events and developments have revealed the importance of the city as an economic, administrative and religious centre: the *Concilium Iliberritanum* (Synod of Elvira), held here in the early 4th century AD; the activity of the episcopal see during the following two centuries; the thirteen different issues of coins minted by the Visigoths with the inscription *Eliberri*; and the existence of a large Jewish community.⁵ On the other hand, beginning in the 4th century AD, the general process of ruralising the economy and society was quite advanced, resulting in less activity in the city and an increase in the number and size of peri-urban constructions. Archaeological evidence of a large number of villas has long existed and new remains continue to turn up by chance during engineering projects, such as during the construction work around the former military barracks known as Los Mondragones alongside the right bank of the Beiro River in early 2013.

2. The Emirate and Caliphate of Granada (711-1013)

After the rapid Arab-Berber conquest of the Iberian Peninsula, the new governors decided for unknown reasons to establish the capital of the *kūrah* (territorial district) in a town on the slopes of the Sierra Elvira called *Castilia*, some 14 kilometres from *Iliberri*. It became recognised as the capital or *ḥāḍira* of the *kūrah* of *Ilbīra* and was later given the name of *Madīnat Ilbīra*. As a result, the original community moved into the background, losing its status and even its name. From that time on it was called *Garnāṭa*. However, its defensive capabilities must have still been substantial in 756: according to Ibn al-Qutīya (d. 977), after Yūsuf al-Fihrī, the last governor of al-Andalus, was defeated in Cordoba by 'Abd al-Raḥmān I, he fled to Granada, where he gathered his strength until the first Umayyad emir laid siege to the city and negotiated his surrender with the promise of a safe-conduct.⁶

During this period, various Arab accounts classify Garnāṭa into different urban categories: hisn, qal'a, and madīna. Because of the polysemy of many Arabic terms used to describe fortified places, objective differences cannot be established between the first two. Furthermore, in some historical sources from the early period, the term madīna was sometimes associated with the habit of identifying old pre-Islamic cities as urban spaces, even though they were clearly in decline or had disappeared at the time they were being described. However, this does not seem to apply to Granada, since the known version of the oldest text from that time by al-Rāzī, a late medieval Portuguese translation that was later translated into Spanish,8 describes Granada using the term hisn, as do the oldest passages in the Muatabis. Moreover, in the Chronicle of 'Arīb. 10 Almuñecar, another pre-Islamic city, is simply referred to by its name al-Munakkab, without the term madīna, which should have been used according to the hypothesis discussed above. On the contrary, the 10th-century chronicle did apply this designation to Granada. This disparity in terms might be based on the very nature of the madīna, which was not like Ilbīra, the primary hub in a large area, but a secondary madīna integrated into Ilbīra. However it was always differentiated from other settlements that could not be considered urban. Its surrounding area contained farms set up along the Darro and Genil rivers.

Therefore, although the population was probably significantly lower during the Emirate period, a large number of 10th-century Arab sources refer to the community as *Madīnat Garnāṭa*, indicating that urban life there had revived and contained the elements that usually characterised a city in the Islamic West: walls, a great mosque or *aljama* and a souk. Archaeological remains attributed to this period found in two streets, María la Miel and Callejón de los Negros, indicate

- ⁵ Julio M. Román Punzón, "Algunas consideraciones acerca de *Eliberri* en época tardoantigua", *Anales de Arqueología Cordobesa*, 16 (2005), pp. 161-180.
- Muḥammad b. 'Umar Ibn al-Qutīya, Historia de la conquista de España de Abenalcotía el Cordobés. Julián Ribera y Tarragó (ed.), Madrid, Tipografia de la "Revista de Archivos", 1926, pp. 22-23; David James (ed.), Early Islamic Spain. The History of Ibn al-Qutiya, London and New York, Routledge, 2009, p. 71.
- ⁷ Christine Mazzoli-Guintard, Ciudades de al-Andalus: España y Portugal en la época musulmana, Granada, Almed, 2000, p. 54.
- ⁸ Diego Catalán and Mª Soledad de Andrés, Crónica del moro Rasis: versión del Ajbār mulūk al-Andalus de Ahmad ibn Muhammad ibn Musà al-Rāzī, 889-955, romanzada para el rey don Dionís de Portugal hacia 1300 por Mahomad, alarife, y Gil Pérez, clérigo de don Perianes Porçel, Madrid, Gredos, 1975.
- ⁹ J. Guráieb, "Al-Muqtabis de Ibn Hayyān", in *Cuadernos de Historia de España*, XVII (1952), pp. 155-166; and XVIII (1952), pp. 152-160.
- Arīb b. Sa'id, La crónica de 'Arīb sobre al-Andalus,
 Juan Castilla Brazales (ed.),
 Granada, Impredisur, 1992.

that the town's size and layout probably mirrored that of *Iliberri*. Both sites contained quadrangular masonry structures. Levels from this period have also been discovered in several squares and streets: Plaza de Santa Isabel la Real, Plaza de San Miguel Bajo, Horno de Vidrio Street and Carmen de la Muralla, among others. To the north of the walled enclosure, a late Roman cemetery continued to be used around the Panaderos street area, where burials dating back to the 10th century were recently found. In 2005, another cemetery was discovered where the street Camino Nuevo de San Nicolás meets no. 10 María la Miel street. This was in use from the 9th to 10th centuries and abandoned in the 11th century.

There is evidence that areas near the Darro and Genil rivers were occupied. Remains from the 10th century were found in Sillería street, and an excavation in Piedra Santa turned up a deposit of materials from the Emirate period at low levels that clearly date from the Zīrid period. Excavations of the *madrasa* documented two tombs predating the 11th century, and a square room was found near the Padres Escolapios school that had been built using river pebbles arranged in a herringbone pattern. Pottery dating indicates that the structure was occupied from the 8th to 9th centuries.¹⁴

3. Granada, capital of the Zīrid Kingdom (1013-1090)

The events that occurred during the late 10th and early 11th centuries –the disintegration of the Umayyad Caliphate and the arrival of the Zīrids (Berbers from the *şinhādja* branch) on the peninsula– prompted a series of changes that resulted in the capital of the territory being moved from *Madīnat Ilbīra* to *Madīnat Garnāṭa*, which became the seat of the Zīrid Kingdom founded by Zāwī b. Zīrī in 1013.¹⁵ At that time, the defensive capabilities of the existing *madīna* were restored and four gates were built, one at more or less each of the four points of the compass. The numerous preserved remains of walls and towers indicate that the city's southern limit was in the vicinity of the street known today as San Juan de los Reyes and had a surface area of around 18 hectares. This figure, based on archaeological evidence, is somewhat larger than the total area estimated for the Roman city of *Iliberri*, despite the fact that the layout of walled enclosures is usually quite stable over time. To guarantee the water supply, a *coracha* or walled passageway was initially built to connect the enclosure with the Darro River. The preserved walls and gates were built using lime mortar walls with a large number of stones mixed in, a style known as *calicanto*, with flagstones in the corners.

Thanks to the consolidation of the kingdom in the following decades, the conquest of territory belonging to the nearby $k\bar{u}rah$ districts and the resources generated by new irrigated fields, the Zīrid dynasty was able to consider a new plan for the city in the area adjacent to the old pre-Islamic city they inherited, towards the lowlands in the west and south and southeast to the Darro River. Thus, a large walled area was delimited that was urbanised in accordance with the principles of Islamic law that would be called $Mad\bar{\iota}nat$ $Garn\bar{\iota}a$ until the end of the 15th century. In addition to producing more comfortable growing space, this expansion had a strategic objective: to connect the emerging fortress of the Alhambra with the town walls, thus preventing any potential enemy attacks from that point. The high part of the city, which had better natural defensive conditions, was the most heavily fortified and would continue to be the site of the alcazar (fort, castle or palace), the seat of power. It was called the "high city" $(al-mad\bar{\iota}na \ al-f\bar{\iota}aqa)$ or alternatively the alcazaba (al-qasaba) to distinguish it from the "low city" $(al-mad\bar{\iota}na \ al-sufla)$. The great mosque (aljama)

¹¹ Ángel Rodríguez Aguilera and Antonio Orihuela Uzal, *Madīnat* Garnāṭa: la Granada nazarí. Estado de la cuestión (in press).

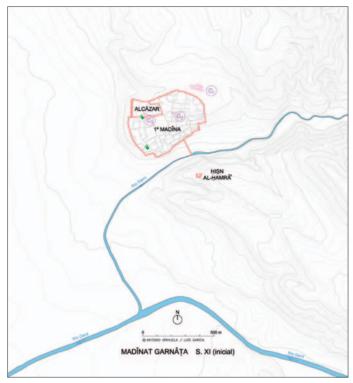
12 Dated using C14. Some were difficult to validate, but certainly significant, in María Teresa Bonet García, "Intervención arqueológica preventiva en la calle Panaderos n° 21-23, Albayzín, Granada", in Anuario Arqueológico de Andalucía/2006, Seville, Junta de Andalucía, 2010, pp. 1715-23.

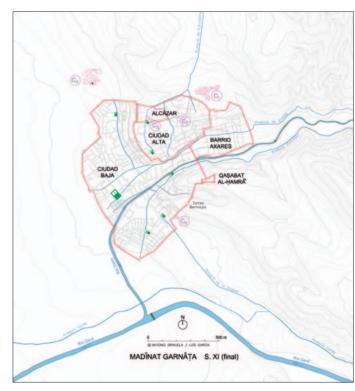
¹³ Gallegos Castellón, Loreto, "Intervención Arqueológica Preventiva mediante sondeo en Camino Nuevo de San Nicolás esquina con Cuesta María de la Miel no 10 (Granada)". In: Anuario Arqueológico de Andalucía/2005, Seville, Junta de Andalucía, 2010.

¹⁴ Ángel Rodríguez Aguilera and Antonio Orihuela Uzal, *Madīnat Garnāṭa... op. cit.* [note 11].

15 The Tibyān: memoirs of 'Abd Allāh b. Buluggīn last zīrid amīr of Granada, translated from the emended Arabic text and provided with introduction, notes and comments by Amin T. Tibi, Leiden, Brill, 1986.

¹⁶ I would like to thank Dr. Amalia Zomeño (CCHS-CSIC) for her assistance in locating the Arabic terms used in the manuscript *Les* "*Mémoires*" de 'Abd Allāh, Évariste Lévi-Provençal (ed.), Cairo, Dār al-Ma'ārif,





Zirid Granada, early 11th c.

Zirid Granada, late 11th c.

was moved to the lower area and became established in a central and accessible position with respect to the new city design.

It may be that it was at this point in the city's development that the neighbourhood known as the Barrio de Axares was integrated into the new walled enclosure to the southeast. This sector had a controlled urban layout with parallel streets that followed the steepest slopes on the hill, which suggests that they originally had some connection to access roads to the irrigated orchards that drew water from the irrigation channel that gave the area its name.¹⁷ The area, which was well situated to avoid midday heat and also cooled by the Darro River, had a wall to the east running alongside a natural streambed, now the Cuesta del Chapiz thoroughfare. At the end of the 11th century, the walled area of the *madīna* measured around 65 hectares, possibly containing the Axares neighbourhood but without including the *alcazaba* (palatial fortification). Inside the city, vast empty spaces were used as orchards, but over time they slowly became occupied by residences and workshops. The few buildings still standing from the Zīrid period include the former minaret, which was later converted into the bell tower for the church of San José, and a stone bridge with five arches that crosses the Genil River. Built in the style of traditional caliphate architecture, they were made with sandstone slabs using stretcher and header bond construction.

During the Zīrid period, new *acequias* or irrigation channels were created and old ones recovered. After being used to irrigate crops and to power the water along its peri-urban route, these *acequias* provided the city with its water supply: the Aynadamar irrigation channel carried water to the *alcazaba* from the Fuente Grande spring in the town of Alfacar; the Axares and Romayla ones shared a weir in the Darro River before dividing to irrigate the city areas on the river's left and right banks; the Ciudad irrigation channel, an off-branch of the *Acequia* Gorda coming from the Genil

¹⁷ Julio Navarro Palazón and Pedro Jiménez Castillo, Las ciudades de al-Andalus. Nuevas perspectivas, Zaragoza, Instituto de Estudios Islámicos y de Oriente próximo, 2007. I would like to thank Dr. Julio Navarro (Laboratory for the Archaeology and Architecture of the City, EEA-CSIC) for his conceptual contributions on Islamic urbanism in general and Granada in particular.

River, carried the water to the highest point in the *madīna*, at the foot of the hill dominated by the fortified complex of the Torres Bermejas, where archaeological excavations have found remains from pottery workshops operating during this period. It was not uncommon at this time to establish rather unpleasant activities in these areas that were formerly developed within the walled enclosure, and, indeed, tanneries and dye-works were located on both sides of the Darro River as it made its way through the *madīna*.

The old cemetery located to the north of the *alcazaba* continued to be used, but in the 11th century, work began on a second graveyard outside the Gate of Elvira, which would later become the most important cemetery in Granada during the period of al-Andalus. It may be that the people living on the left bank of the Darro River began to use the small cemetery located outside the *bāb Mawrūr* area (later known as Puerta del Sol). The Zīrid dynasty had its own *rawḍa* or royal cemetery in the *alcazaba* near the citadel, where Emir Bādīs (d. 1073) was buried, although archaeologists have not yet been able to locate the site.

4. Granada under the Almoravids and Almohads (1090-1232)

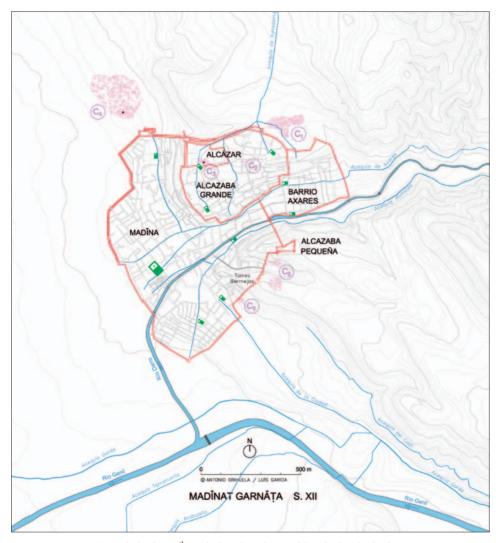
After the Almoravids conquered the *taifa* kingdoms, Granada became one of the most important cities in al-Andalus, at times serving as its capital. Its governors remained in the *alcazaba*, which al-Zuhrī described as "the big one" to differentiate it from the small one on the Alhambra hill. In 1125, after the incursion into the southern Iberian Peninsula by Alphonso I the Battler, a new tax was created to reinforce the damaged fortifications of many cities, including Granada. The improvements may have consisted of building a new stretch of walls parallel to the ones in the northern part of the *alcazaba*. It is also possible that they built an external wall in the virtually flat area from the Gate of Elvira (*Bāb Ilbīra*) to the Darro River or at least to the Gate of Bibalmazán (*Bāb al-Masdal*), today the square known as Plaza de la Trinidad, of which three sections have been discovered in the last decade. The constructions' walls were *calicostradas*, i.e., made of a hard crust, rich in lime with less binding agent inside and without any reinforcement at the corners of the tower.

After the late conquest of the city by the Almohads around 1156-1157 and the siege by troops supporting Ibn Mardānish in 1162, the capital of al-Andalus was finally established in Seville and large-scale fortification work ceased to be done in Granada. However, the urban area continued to grow, crowding the *madīna*, and the population spread out into the open areas of Alfareros and Loma (*Nadjd*) to the south as well as possibly into the Albayzin, north of the *alcazaba*. As part of this process, the ceramics industries, initially set up inside the walls, were moved outside to the Alfareros area, where large gardens and orchards were also planted by the governors. In 1218, the Almohads established an important orchard called Alcazar Genil on the left bank of the Genil River, whose waters ran under the stone bridge with five arches, resulting in a restructuration of the way in which the water from the *Acequia* Gorda was distributed.¹⁹

In the 12th century, construction of the cemetery at the Puerta de los Alfareros gate began, filling an extensive area where the Campo del Príncipe esplanade was later laid out in the 16th century, rising up past this field to the hillside where the Hotel Alhambra Palace is located today. It is also possible that burials took place on both sides of the Barranco de la Sabika ravine.

¹⁸ Dolors Bramon, El mundo en el siglo XII. Estudio de la versión castellana y del "Original" árabe de una geografía universal: El tratado de al-Zuhrī, Sabadell, AUSA, 1991.

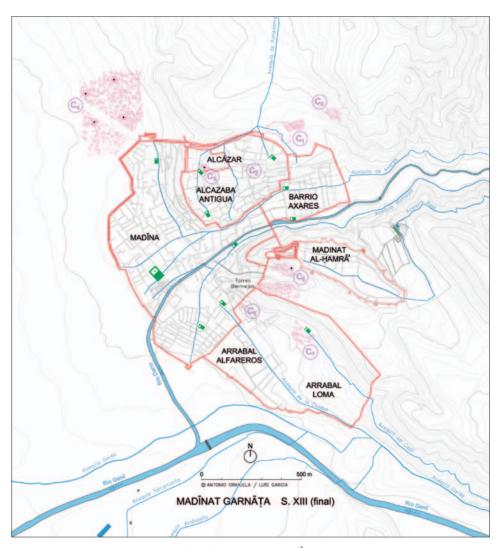
¹⁹ Miguel Jiménez Puertas, "Sistemas hidráulicos de la Vega de Granada en época medieval: los regadíos del Genil", in Paola Galetti (ed.), *Paesaggi, Comunità,* Villaggi Medievali, Spoleto, Centro Italiano di Studi Sull'Alto Medioevo, 2012, pp. 125-38.



Granada in the 12th c., during the Almoravid and Almohad reigns

5. Granada, capital of the Nasrid Kingdom (1238-1492)

After the disintegration of the Almohad Empire in al-Andalus, the so-called third *taifa* kingdoms were formed to check the advance of the Christian kingdoms across the peninsula towards the south. In 1232, Muhammad Ibn al-Ahmar declared his independence in Arjona (Jaen) and shortly thereafter, in 1238, he reached an agreement with the denizens of Granada to set up his capital in their city. Initially, it was established in the *alcazar*, located in the great *alcazaba*, the point from which the territory had been governed since the beginning of the Zīrid dynasty. However, a few months later, he decided to create a new city on the Sabika hill, on the left bank of the Darro River, taking advantage of a much more secure strategic position. They took over the small *alcazaba* that had been built there but had to create a new irrigation channel from the river to guarantee their own water supply. This operation was in keeping with a long tradition of creating palatial cities for the emir, his court, his personal guard and closest advisors to live in dating back to the early days of Islam. Thus the Alhambra (*Madīnat al-Ḥamrā'*) and Granada (*Madīnat Garnāṭa*) became two juxtaposed, autonomous cities with different functions, the former the seat and representation of power with its superior topographical position separate from the latter, which continued to handle the remaining urban activity.



Nasrid Granada, late 13th c.

5.1. Urban structure

Granada's complex topography and the compartmentalisation created by the interior walls in different areas were still quite noticeable at the end of the Nasrid period. Consequently, the main streets in each sector were fairly autonomous with respect to the others. There was a hierarchisation of streets, indicated by their width and the intensity of the flow of people through them. These important routes, which were characterised by heavier commercial activity, began at the main gates of their respective walls and ended in a square or at a crossroads. In Granada, due to the eccentric location of the great mosque (*aljama*), the true centre of communication was at the end of the main city street, Elvira Street, and a small square called Cuchilleros, which were joined by the Baño de la Corona bridge. This spot continued to be very important until the end of the 15th century and would later be converted into a square called Plaza Nueva, which covered the Darro River. The communications within the city walls between the two banks of the Darro were established by five bridges.

Commercial activity took place on Elvira Street and especially in the *souqs* located at the end of the street and in the $B\bar{a}b$ al-Ramla area, which was reached by going down a street called

Zacatin. This area also contained merchandise exchanges, important specialist establishments that also housed the merchants visiting the city.

As the Nasrid capital, Granada had specific structures, such as a *maristān* (hospital) and an official *madrasa* (school), not found in other cities in the Emirate. Only some important cities like Malaga, Almeria and Velez-Malaga had commercial structures like the *alcaiceria* (bazaar), with the result that the small parts of these constructions that have been preserved are extremely valuable as historical artefacts since they are the only examples of these institutions in al-Andalus today. One such structure is the *Alhondiga Nueva* exchange, better known as the Corral del Carbon, which is the only remaining example on the Iberian Peninsula of a type of building that was once found in all the major commercial cities.

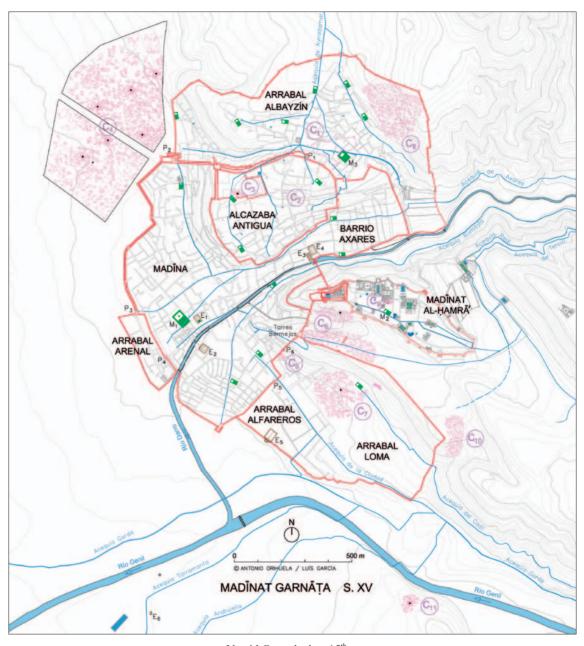
The neighbourhoods around the city grew at an increasing rate from the beginning of the Nasrid period. The Alfareros and Loma areas were protected by a wall common to both, built before the end of the 13th century. Only some sections and southern towers have been preserved, making it impossible to trace the entire route, but it may have enclosed an area of some 35 hectares. To the west of the central area of the madīna, the Arenal (al-Ramla) neighbourhood took shape, but any walls it might have had have been lost. The most heavily populated and important area in the city's history was the Albayzin, a very large area covering some 44.5 hectares and containing several different neighbourhoods within. It had a noteworthy degree of autonomy, with its own great mosque (aljama), the only remaining part of which is the courtyard in the present-day Salvador church, and its own *gadi*, or judge. It was walled in during the reign of Yūsuf I (1333-1354), not only to protect the area, but also to better defend the whole madīna from the north, and the wall's route was chosen to fit the most secure topographical contours. For this reason, it was extended to the highest point in the city, 850 metres above sea level, where the Torre del Aceituno tower was then erected and the San Miguel Alto chapel now stands. After this long wall was built, the Rawda del Albaicin cemetery covering the hillside below the Torre del Aceituno and large expanses of garden were walled in, as was the farmstead whose upper level can still be seen today in the Casa del Chapiz villa.

Because of the Albayzin's urban growth, the cemetery located between the present-day Panaderos and San Buenaventura streets was discontinued and the most important commercial area in the neighbourhood was built in its place. The cemeteries in the Alfareros and Puerta de Elvira areas, however, continued to grow. The *rawdas* or mausoleums in these cemeteries served as the final resting place for many of Granada's most prominent families. At the end of the 15th century, it covered a vast area and was divided into two zones delimited by fences and towers.²⁰

The first Nasrid sultans were buried in the Sabika cemetery, which later spread to fill the plateau currently occupied by the villa called the Carmen de los Catalanes. Later, after Ismā'īl I (1314-1325) made a change to the dynastic line, a royal mausoleum was created within the walls of the Alhambra. The body of the sultan's maternal grandfather Muḥammad II was taken there, and the building was used as the governing family's burial place from that point on. Another cemetery was located at the easternmost end of the Loma area, remains from which first appeared at the end of the 16th century in the orchard belonging to the Convento de los Martires and three centuries later in the Barranco del Abogado ravine when the street named the Camino Nuevo de San Nicolas was opened. The most remote burial site in *andalusi* Granada was the *Cementerio de los Extranjeros* (the Foreigner's Cemetery), which was situated next to a small *ribat*, a fortification with religious functions, on the other side of the Genil River, where the former hermitage of San Anton el Viejo was built.²¹

Jorge Lirola Delgado, "Ritos funerarios y enterramientos de la Granada islámica", in Juan Jesús López-Guadalupe Muñoz (ed.), Memoria de Granada: estudios en torno al cementerio, Granada, Emucesa, 2006, pp. 85-115.

²¹ Fernando Velázquez Basanta, "El alcázar del Naŷd y el palacio de los Alijares", Miscelánea de Estudios Árabes y Hebraicos, 60 (2011), pp. 309-25.



Nasrid Granada, late 15^{th} c.

Cemeteries

- C1. Cemetery in Panaderos street
- C2. Cemetery in the old *alcazaba*-fortress
- C3. Zirid cemetery in the old *alcazaba*-fortress
- C4. Cemetery next to the Gate of Elvira
- C5. Cemetery in the Mauror
- C6. Cemetery in the Sabīka
- C7. Cemetery next to the Gate of Los Alfareros
- C8. Cemetery in the Albayzin
- C9. Alhambra Nasrid cemetery

- C10. Cemetery in the Barranco del Abogado
- C11. Extranjeros [foreigners'] cemetery

Important buildings

- E1. Madrasa-school
- E2. Alhondiga Nueva lodge, later the Corral del Carbon
- E3. Nogal baths, popularly known as the Bañuelo
- E4. Maristan-hospital
- E5. Royal Quarters of Saint Domingo
- E6. Alcazar Genil

Mosques

- M1. Great Mosque of Granada
- M2. Great Mosque of the Alhambra
- M3. Great Mosque of the Albayzin neighbourhood

City gates

- P1. Gate of El Castro
- P2. Gate of Elvira
- P3. Gate of El Corrillo or Bibalmazán
- P4. Gate of La Rambla
- P5. Gate of Los Alfareros
- P6. Gate of El Sol



Nogal baths, Granada ḥammām popularly known as the Bañuelo

5.2. Water supply

The complex and diversified water supply system created by the Zīrids, made up of four irrigation channels or *acequias* coming from one spring and two rivers, made it possible for the city to expand into new neighbourhoods, which received their water from existing irrigation channels for more than four centuries. The Albayzin was fed by the Aynadamar irrigation channel and the southern areas by the Ciudad one. To supply the high parts of these neighbourhoods, a new irrigation channel known as the Cadi or Tinajas was devised at a time not specified in known Arabic sources. Today, it is fed by the Genil River waters above Cenes de la Vega, runs parallel to the *Acequia* Gorda and enters the Loma area thirty metres above the Ciudad irrigation channel.

The Alhambra's Royal *acequia* was divided into two parts, with one third of the water flow directed to a high point above the Generalife to irrigate new orchards there, perhaps during the 14th century. Both branches then came back together before entering the Alhambra and carrying the surplus water to the city, meaning that this division cannot be used to date the new gardens or vice-versa. The surplus water reached the Mauror (*Mawrūr*) neighbourhood, within the walls of the *madīna* below the Torres Bermejas fortress. Situated at a high point, this area could not take advantage of the water from the Romayla irrigation channel, which passed below. This *acequia* was built at the initiation of the prime minister (*ḥādjib*) Riḍwān during one of his two ruling terms



View of Granada with the old *alcazaba*-fortress walls in the foreground, the Alhambra *alcazaba* on the left and Torres Bermejas fortress in the centre

(1329-1340; 1354-1359).²² The southern areas that were too high to get water from the Cadi irrigation channel also used it. When the city of Antequera was conquered in 1410 and its people fled, they were able to settle in a new very high area (which is still known as Antequeruela today) thanks to the elevated *acequia*. On the dry hills above the Alhambra, several farmsteads were built in the 14th century that needed water, for which a new irrigation channel called Arquillos that took its water from the Beas River, a tributary of the Darro, was built, along with complex systems of water mills and reservoirs.²³

Reservoirs of different sizes were used to store the water, along with public and private cisterns and large earthenware jars. The system of public cisterns was particularly outstanding and had no equal in any other city in al-Andalus. Today, twenty-eight cisterns still exist, eleven in the old *alcazaba* and fourteen in the Albayzin, but only three in the *madīna*, due to the fact that there has been much more urban renewal in the flat areas than in the neighbourhoods on the hills. At that time, the distribution of the cisterns across the city was even and there are many documentary references to cisterns that no longer exist.²⁴

After the different neighbourhoods were walled in, the city of Granada reached the end of the 15th century with around 175 enclosed hectares, including the 10 within the Alhambra. The corresponding population, considering the construction of new upper floors in many houses during this century and the arrival of a large number of refugees, was probably around 70,000, making it the most populous city in Spain and one of the largest in Europe.

²² Luis Seco de Lucena Paredes, "El hāŷib Ridwān, la madraza de Granada y las murallas del Albayzín", Al-Andalus, XXI (1956), pp. 285-96.

²³ Luis José García-Pulido, La dimensión territorial del entorno de la Alhambra, Seville, Universidad de Sevilla, 2011.

Antonio Orihuela Uzal and Carlos Vilchez Vilchez, Aljibes públicos de la Granada islámica, Granada, Ayuntamiento de Granada, 1991.