Field Study: The Moorish Legacy in Granada and the Sierra Nevada

Arts, culture, plant life and terrain in Andalusia

Jeffrey Ferns · Tarra Lazos Creative · Field visit May 6–11, 2026

Madrid to Granada by road through eastern Andalusia; the Albaicín, Sacromonte and the Alhambra; the Los Cahorros gorge at Monachil; and the A-395 climb through the Sierra Nevada to the old Mojón del Trigo observatory

Why Andalusia

If you want to understand why Andalusia is my favorite part of Spain, you have to understand that it doesn't feel entirely European. It feels like a crossroads, a place where Africa and the Middle East and the Mediterranean all pressed themselves into the stone and the music and the food and never fully left. That is because they didn't.

Andalusia was shaped by a succession of civilizations. Phoenicians from Tyre founded Gadir, today's Cádiz, as a trading post, and its traditional founding date of about 1100 BCE makes it one of the oldest cities in Western Europe (Britannica). Romans and Visigoths followed. But it was the Muslims who crossed from North Africa in 711, mostly Berbers led by the Berber commander Tariq ibn Ziyad and followed by Arab armies, whom Europeans came to call the Moors, who left the most indelible mark (Wikipedia: Muslim conquest of the Iberian Peninsula; Wikipedia: Al-Andalus). They called it al-Andalus, and Muslim rule lasted nearly 800 years, from 711 until Granada fell in 1492. Eight centuries of architecture, agriculture, philosophy, poetry and culinary tradition soaked into this land. You can still taste it. You can still hear it.

On our last trip through Spain, Greg, Tracy and I explored western Andalusia: Seville, Cádiz and the white villages of the interior. This time we drove from Madrid south through eastern Andalusia, taking our time through the small towns and wild nature of the Sierra Nevada corridor before landing in Granada. I wanted the road version, the kind where you pull over because a village looks interesting, where you find lunch somewhere that doesn't have a website.

We stayed in Granada, the crown jewel of that Moorish world, and took day trips into the countryside and nature preserves. The Alhambra sits above the city like a dream you can walk through, its geometry, water and light a testament to a civilization that understood beauty as a form of devotion. A couple of hours northwest, in Córdoba, stands the Great Mosque, begun in 785 under ʿAbd al-Raḥmān I and now more than 1,200 years old. Its forest of horseshoe arches, striped in red brick and white stone, is still arresting in a way no photograph fully captures (Wikipedia: Mosque–Cathedral of Córdoba). The Alcázar in Seville, which we visited last time, is more of the same architectural genius, a conversation between cultures, layer upon layer of human imagination. Its most famous palace was built in the 1360s for a Christian king, Pedro I,

by craftsmen from Toledo, Granada and Seville working in the Islamic tradition (Google Arts & Culture).

And then there is flamenco. It was born here in Andalusia, and many musicians and scholars hear in it the Moorish musical tradition: the bent notes, the modal scales, the ache in it. You hear that same quality in Arabic classical music, in the call to prayer, in the strings of an oud. Flamenco took its modern form in the 19th century, carried above all by Andalusia's Gitano families, and its roots are debated, but the shared modes, rhythms and ornaments with Arab-Andalusian music are real (Machin-Autenrieth, Ethnomusicology, 2019; Reset DOC). It is not a coincidence. It is an inheritance, one of several. Pablo Picasso was born in Málaga, on the coast southwest of Granada, on October 25, 1881 (Museo Casa Natal Picasso), and you can feel in his work the same restless visual energy that Andalusia produces in people, in a place where civilizations collided and made something entirely new.

Summary

This trip was different from my other field studies. It was built around an arts and culture event in Granada, so the city's art, flamenco and street culture came first, and the landscape came after. The questions I carried were about influence: how the Moorish centuries still shape the food, the music, the architecture, the water and the way people farm the mountains.

After the drive south, the visit had three parts. First, the Albaicín and Sacromonte, the hillside quarters facing the Alhambra, which I walked by day and late at night. Second, a hike through the Los Cahorros gorge on the Río Monachil at the base of the Sierra Nevada, past running water, pools, hanging bridges and small farms. Third, a drive up through the climate belts of the Sierra Nevada to the snowfields near the old observatory at about 2,600 m.

Three ideas run through what I saw:

1. **Layered peoples.** Granada sits on top of Iberian, Roman, Berber, Arab, Jewish, Castilian and Gitano layers. They don't sit neatly on top of one another; they bleed into each other in the music, the food words and the walls.
2. **Water as the thread.** The same Moorish engineering that filled the Albaicín's cisterns also runs channels across the mountain slopes and keeps the farms at the base of the Sierra green.
3. **Life in the high country.** The small farms on the upper slopes, worked while the world goes on far below, reminded me directly of the Amazigh villages I visited in Morocco's High Atlas.

Background

How long people have lived here

The province of Granada holds some of the oldest evidence of humans in Western Europe. A child's milk tooth found at Barranco León, near Orce, is dated to about 1.4 million years ago (Museo Arqueológico de Granada; Toro-Moyano et al., Journal of Human Evolution, 2013). Much later, in the Cueva de los Murciélagos at Albuñol, people wove baskets from esparto grass about 9,500 years ago, and Neolithic farmers made esparto sandals about 6,200 years ago, the oldest footwear found in Europe (Science Advances, 2023; El País). Esparto is still braided in Andalusia today.

The city itself began as the Iberian settlement of Iliberri, among the Bastetani, around the 7th century BCE. It became a Roman municipality, Florentia Iliberritana (Wikipedia: Granada). Farming in the Sierra Nevada goes back to the Neolithic and intensified sharply in the Islamic period (MDPI Water, 2025).

Peoples on top of peoples

- **Zirids (1013–1090).** Granada became a capital under the Zirids, a Sanhaja Berber dynasty from North Africa, who built their court in what is now the Albaicín (Escuela de Estudios Árabes, CSIC; Junta de Andalucía). Granada's Jewish community had a golden age in this period that ended violently in 1066 (Explore Granada).
- **Nasrids (1238–1492).** The Nasrid emirate built the Alhambra and held Granada until January 2, 1492, the last Muslim kingdom on the peninsula (Alhambra de Granada).
- **Moriscos.** After 1492, Muslims were forced to convert. The Moriscos of the Alpujarras, on the south face of the Sierra Nevada, rose up in 1568. After the war ended in 1571, about 80,000 were deported across Castile, and the villages were resettled by northern Christians who had to repair the Moorish channels to farm at all (Wikipedia: Rebellion of the Alpujarras). The general expulsion of Moriscos from Spain followed in 1609–1614 (Encyclopedia.com).
- **Gitanos.** The first documented Roma in Spain arrived with a royal safe-conduct dated January 12, 1425, and they were in Andalusia by 1462 (Fundación Secretariado Gitano; Spanish Ministry of Culture). Spain marked the 600th anniversary in 2025 (Fundación Secretariado Gitano). In Granada they settled the caves of Sacromonte, and that is where much of the city's flamenco grew up.

UNESCO sites

The Alhambra and Generalife were inscribed on the World Heritage List in 1984, and the listing was extended to the Albaicín in 1994 (Spanish Ministry of Culture; UNESCO). Flamenco was added to UNESCO's intangible heritage list in 2010, which notes the essential role of the Gitano community (UNESCO). Above the city, the Sierra Nevada was named a Biosphere Reserve in 1986, a Natural Park in 1989 and a National Park in 1999 (IUCN Green List; IEPNB).

Method

This is an observational field study. I walked, hiked and drove, photographed what caught my attention and kept a handwritten journal (Fig. 4). I put together the account afterward from about 150 photographs and three short video clips, using the location and time data in the files to place each image, and then checked historical and botanical points against published sources. Plant names are field identifications from photographs and are marked "probably" where I'm not certain. People in the photographs are not named.

Observations

The road south

We came down from Madrid by car. My first photographs of Andalusia were taken on the evening of May 6 in Jaén province, about 100 km north of Granada: olive groves running in rows over low hills under a streaked sky (Fig. 1). Jaén is Spain's great olive country, and the word for its oil, *aceite*, is one of the Arabic words still in everyday Spanish. By nightfall we were in Granada, looking across at the Alhambra lit up on its hill.

The Albaicín after dark

The trip began with long walks through the Albaicín and up into Sacromonte, much of it late at night when the lanes were empty and lit by lamps (Fig. 2). The neighborhood is the old Zirid city, and its street plan still feels like a medina: narrow cobbled lanes, whitewashed walls, and gardens hidden behind high doors.

The Moorish structure shows everywhere once you look for it. I photographed a horseshoe-arched doorway framed by hanging vines (Fig. 3), and a Nasrid-style portal with a tiled frame and a carved arch over a heavy wooden door (Fig. 5). Beside a church I found a small brick-arched cistern, one of the Albaicín's aljibes. About 28 of these public cisterns survive, most built between the 10th and 15th centuries, many attached to mosques, and they were fed by the Aynadamar channel that the Zirid emir ʿAbd Allah built in the 11th century from a spring at Alfacar (Mis paseos por Granada; El Independiente de Granada). They stayed in use until the mid-20th century.

At the foot of the Cuesta del Chapiz I passed the Escuela de Estudios Árabes (Fig. 6), a CSIC research institute founded in 1932 and housed in the Casa del Chapiz, two Morisco houses with roots in the 14th century (CSIC; Granada Turismo). The houses are named for their Morisco owners, Lorenzo "el Chapiz" and Hernando López "el Ferí". Scholars there still study al-Andalus from inside a Morisco home.

The walls as a public notebook

The Albaicín's walls talk. Late at night I photographed handwritten lines on whitewash: "Cada día estoy + enamorada de ti" (Every day I am more in love with you), "Eres libre de pensamientos, no de acciones" (You are free in your thoughts, not your actions), and a longer verse about a smile being a treasure. There were political slogans too, a stencil portrait with a

fragment of verse (Fig. 7), and a screen-printing workshop poster from a local studio, Ojo Atelier, showing a many-armed figure surrounded by ink jars (Fig. 8). Together they read like a neighborhood notebook, poetry and protest and advertising side by side.

The art carried into the day. On Calle Panaderos I stopped at El Hombre Invierno, an illustrator's studio and shop near the Mirador de San Nicolás (El Hombre Invierno). One painting shows a woman whose dress is made of the Albaicín's own white houses climbing a hill (Fig. 9). Another shows a large, gentle creature sitting cross-legged in a library. The work is quiet and personal, and it belongs to the place.

Flamenco, Sacromonte and Chorrojumo

Sacromonte begins where the Albaicín ends, at the Cuesta del Chapiz. Its cave houses are dug into the hillside. In the early 1950s there were 3,682 inhabited caves, and the first cave opened to visitors for flamenco in 1881 (Machin-Autenrieth, MUSICultures, 2017). Granada's own form is the zambra, a performance based on Gitano wedding celebrations and unique to the city (same source).

On the Camino del Sacromonte I photographed the posters outside the Cueva Los Amayas, a cave run by the Amaya family, a historic Gitano flamenco family (Fig. 10). It presents a zambra without a stage or amplification for up to 60 people, looking across at the Alhambra (Cueva Los Amayas). Nearby, signs pointed to the Museo Cuevas del Sacromonte and a flamenco school.

At the entrance to Sacromonte stands a hammered-brass statue from 1987 of Chorrojumo, Mariano Fernández Santiago (d. 1906), who called himself the "king of the gypsies". He dressed in costume, posed for painters and travelers, and is remembered as Granada's first tourist guide (Granada Turismo; Granada Hoy) (Fig. 11). He is a reminder that the romantic image of Granada was partly a performance, staged by Gitanos for visitors who arrived wanting it.

The nuba and the Moorish sound

Along the Carrera del Darro I photographed a panel, in Spanish, English, Italian, French and Arabic, on the nuba (Fig. 12). It explains that the word dates to the Abbasid court of the 8th century, where it meant a musician's turn to play before the ruler, and that Ziryab brought the form to al-Andalus. The panel adds that there were originally 24 nubas, one for each hour of the day, and that many are now lost.

Ziryab arrived in Córdoba in 822, at the court of ʿAbd al-Raḥmān II (Library of Congress). Scholars debate how much of the tradition he personally founded (African Music journal). What is not in doubt is that the music crossed the strait. Morocco's Andalusian music continues the Granada school, and 11 nubas survive there (Jewish Music Research Centre). That links this study directly to my Morocco one. The music I heard in Marrakech has roots in this valley.

The Alhambra from the terraces

On the evening of May 7 I sat on a terrace in the upper Albaicín, on Calle Montes Claros, with the Alhambra across the valley among cypresses and white houses (Fig. 13). The next evening, after the hike, the Alhambra stood against the snow-capped Sierra Nevada (Fig. 14). That view sums up the region's story: a Nasrid palace-city built on water brought down from those same mountains.

Food and the Arabic of the kitchen

The Moorish influence on Andalusian food is in the ingredients and in the words. Rice, sugar cane, saffron, citrus, almonds and eggplant spread through al-Andalus, and their Spanish names came from Arabic: *arroz*, *azúcar*, *azafrán*, *naranja*, *berenjena*, *aceite* (Forgotten Feasts; AramcoWorld). In the Nasrid kingdom of Granada, sugar cane grew on the coast, saffron near Baza, and orchards of fruit trees, including cherries, filled the irrigated valleys alongside aromatic herbs such as thyme and fennel (IES La Madraza). On my hike I walked through exactly that kind of landscape, under cherries and figs.

Los Cahorros: water, bridges and farms

On May 8 we hiked the Los Cahorros gorge on the Río Monachil, between about 900 and 1,040 m. The river has cut a narrow limestone canyon here (Fig. 15), and the path crosses it on hanging bridges, the longest about 63 m (Fig. 16), and passes waterfalls and clear pools (Fig. 17) (Turismo de Granada). The sound of water was constant (video clip IMG_3427).

What struck me most were the farms at the base of the gorge. We walked through cherry orchards and fig trees, past small farmhouses with dogs barking behind the walls. The official route description notes the cherry and fruit orchards around the Cortijo de la Umbría (Turismo de Granada), and one local guide says the paths were first cut by workers maintaining the Moorish irrigation channels (Explore Granada). The people we passed spoke a dialect distinctive to the area. Andalusian Spanish softens or drops the final *s*, aspirating it as an *h*, and Granada's speech has long been described as having its own nasal quality (Wikipedia: Andalusian Spanish; Lingüística y Literatura review). In much of rural Granada province, *s* and *z* both come out as a soft *th* (ceceo), a pronunciation tied to the countryside (Purdue dissertation).

One hand-lettered sign on the trail said: "Odia el capital, ama la natura" (Hate capital, love nature) (Fig. 18). The art and the opinions don't stay in the city.

Plant life at the base

Climbing out of the gorge, the vegetation shifted from the wet, shaded riverbank to dry, sunny limestone slopes. Spring flowers were everywhere:

- Pink bindweed, probably mallow-leaved bindweed (*Convolvulus althaeoides*), threading through feathery grasses (Fig. 19).
- Tall yellow umbellifers, probably giant fennel (*Ferula*), with wild fennel nearby, and low pink cranesbills (video clip IMG_3477).

- Red poppies in an olive-grove meadow (Fig. 20), purple thistles, yellow daisies on dry slopes, and the big seed globes of salsify.

Higher up the mountainside we found wild rosemary and other herbs. That fits the botanical record. Rosemary is a defining shrub of the Sierra Nevada's lower belts, alongside thymes, lavenders, savory and rockroses in an aromatic scrub that local beekeepers and herb gatherers have long used (Junta de Andalucía, Flora amenazada y endémica de Sierra Nevada). The fennel and thyme of Nasrid gardens still grow wild on these slopes.

Climbing through five climates

On May 9 we drove up the Sierra Nevada. The mountain is the only range in the Iberian Peninsula with five of the six bioclimatic belts recognized in the Mediterranean region, from the warm thermomediterranean at the base to the cryoromediterranean "cold desert" at the summits (Junta de Andalucía, La flora de Sierra Nevada y su origen; MITECO). The range holds more than 2,100 plant species, about a quarter of all Iberian flora, with around 65 found nowhere else on Earth (MITECO).

Belt	Approx. altitude	What I saw
Mesomediterranean	600–1,400 m	Olive groves, poppies, fennel, bindweed and rosemary around Los Cahorros
Supramediterranean	1,400–2,000 m	Misty green meadows with hedgerows (Fig. 21); a stream with moss, purple salsify (Fig. 22), barberry and yellow broom (Fig. 23)
Oromediterranean	2,000–2,800 m	Pine forest, then low, creeping juniper hugging the ground against wind and snow (Fig. 24)
Cryoromediterranean	above about 2,800 m	Seen from below: the snowfields and bare summits above the observatory (Figs. 25, 26)

Altitude bands are approximate and vary by slope (Limnetica, 2025).

Near 1,430 m, at Hoya de las Margas, I held a purple salsify flower in my palm and photographed shrubs that are probably Spanish barberry (*Berberis hispanica*), hung with green berries. Barberry is a typical shrub of this belt (Wikipedia: Flora de Sierra Nevada). An animal skull lay in the grass, probably from a goat or sheep, a sign of the grazing that has shaped these slopes for millennia.

At the El Dornajo Visitor Centre, about 1,660 m, the exhibits honor the Romantic travelers who came to study and write about the Sierra: Simón de Rojas Clemente, the Swiss botanist Edmond Boissier, the German botanist Moritz Willkomm, Washington Irving and Alexandre Dumas (Junta de Andalucía, El Dornajo). One panel quoted a line I wrote down: "No se viaja para ir a ninguna parte, sino para ir" (You don't travel to get somewhere, but simply to go).

Wildlife

The animal I most wanted to see was the Iberian ibex. The Sierra Nevada holds the largest population on the peninsula, roughly 15,000 animals (Scientific Data, 2020). I didn't photograph one this time. What I did record was more domestic: cats curled on Albaicín doorsteps, farm dogs barking in the gorge, and the skull on the high meadow.

The snowline and the observatory

By the time we reached about 2,500 m, near Hoya de la Mora, the snowfields came right down to the road. We pulled on our coats as the wind picked up, though it had been warm at the base of the mountain (Fig. 25). On the ridge above stood the old red-roofed Mojón del Trigo observatory (Fig. 26). The Jesuit astronomer Teodoro Vives began building it in 1965 at 2,605 m, because the lights of growing Granada were spoiling the view from the city's Cartuja observatory. It was one of Spain's first permanent high-mountain observatories, with a 32 cm telescope donated by Georgetown University (Universidad de Granada; IAA-CSIC). It was replaced in 1981 by the current Sierra Nevada Observatory, higher still at 2,896 m on the Loma de Dílar (Observatorio de Sierra Nevada).

Reflections

High farms, from the Atlas to the Sierra

The most personal moment of this trip came on the drive up. Along the high lines of the mountain we passed small rural farms, people working plots far above the city while the world goes on below them. It took me straight back to the High Atlas, where I watched Amazigh families farming terraces and living their lives in villages near the crest.

The resemblance is not a coincidence. Both landscapes were shaped by people of the same Islamic, largely Berber-led world, using the same idea: catch the mountain water and lead it, by gravity, to the fields. In the Sierra Nevada, *acequias de careo* were built from the 8th to 10th centuries to "sow" snowmelt into the slopes so that it would recharge springs lower down. About 3,000 km of channels have been mapped, and more than 700 km of careo channels mostly still work (BBC Future; Martos-Rosillo et al., Universidad de Granada). In Morocco I wrote about the seguias that carry spring water to Atlas gardens. These are related systems on two sides of the strait.

Culture as layering

Granada doesn't let you separate its peoples cleanly. A Gitano zambra performed in a cave below a Nasrid palace; an Arabic-studies institute in a Morisco house; Arabic words for the oil, the rice and the saffron; Christian churches standing on mosques with Moorish cisterns at their doors. Even the self-styled "king of the gypsies" was performing an image of Granada for foreign visitors. The arts and culture event that brought me here fit into that long habit. Granada has always been a place where cultures perform for and borrow from one another.

Why it matters for my work at home

My work in Arizona centers on how land, water, food and culture fit together, from Sonoran Desert plants to Indigenous foodways. Andalusia shows the same truths in another key. Water engineering built over a thousand years ago still decides what grows, the wild herbs on the slopes are the same ones in the kitchen, and the art on the walls is as much a part of the place as the monuments.

Figures

Fig.	Photo	Caption
1	IMG_3316	Olive groves under an evening sky in Jaén province on the drive south from Madrid, May 6.
2	IMG_3365	A lamplit cobbled lane in the upper Albaicín late at night, May 7.
3	IMG_3367	A horseshoe-arched doorway under hanging vines, Albaicín.
4	IMG_3329	My field journal, coffee and a guide to the Albaicín and Sacromonte, the first night in Granada.
5	IMG_3351	A Nasrid-style portal with a tiled frame and carved arch, Albaicín.
6	IMG_3348	The Escuela de Estudios Árabes (CSIC), housed in the Morisco Casa del Chapiz since 1932.
7	IMG_3368	A stencil portrait with a fragment of verse on an Albaicín wall.
8	IMG_3362	A poster for a screen-printing workshop at Ojo Atelier, on a layered Albaicín wall.
9	IMG_3622	A painting at El Hombre Invierno, Calle Panaderos: a woman whose dress is made of the Albaicín's houses.
10	IMG_3340	The poster for the Cueva Los Amayas zambra on the Camino del Sacromonte.
11	IMG_3372	The 1987 brass statue of Chorrojumo at the entrance to Sacromonte.
12	IMG_3381	A multilingual panel on the nuba and Ziryab, Carrera del Darro.
13	IMG_3382	The Alhambra across the valley from a terrace on Calle Montes Claros, May 7.
14	IMG_3489	The Alhambra with the snow-capped Sierra Nevada behind, May 8.
15	IMG_3411	Limestone cliffs of the Los Cahorros gorge, Río Monachil.
16	IMG_3419	A hiker crossing a hanging bridge in Los Cahorros.
17	IMG_3421	A waterfall and pool in the gorge.
18	IMG_3463	A hand-lettered trail sign: "Odia el capital, ama la natura".
19	IMG_3464	Pink bindweed, probably *Convolvulus althaeoides*, among grasses above the gorge.
20	IMG_3485	Red poppies at the edge of an olive grove, Monachil.
21	IMG_3504	Misty meadows and hedgerows at about 1,480 m on the Camino Real de los Neveros.
22	IMG_3522	A purple salsify flower held in my palm, Hoya de las Margas, about 1,430 m.
23	IMG_3525	Yellow broom in a rocky meadow, about 1,430 m.
24	IMG_3541	Creeping juniper at about 2,100 m, Mirador Monte Ahí de Cara.

Fig.	Photo	Caption
25	IMG_3586	Walking across the snowfields in the wind near Hoya de la Mora, about 2,520 m.
26	IMG_3587	The old Mojón del Trigo observatory on its ridge at 2,605 m.

Video clips: IMG_3427 (the Río Monachil in Los Cahorros), IMG_3477 (giant fennel and cranesbills above the gorge), IMG_3491 (panorama of the Alhambra from the Albaicín).

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