



**SUSTAINABILITY ROUTE
LA GARROTXA
SCIENTIFIC ROUTES IN GIRONA**



Diputació de Girona



Ready to satisfy your infinite curiosity?

These routes through the *comarcas* (similar to counties) of Girona aim to provide an alternative to conventional tourism, offering a proposal that has the added bonus of providing scientific and sustainable knowledge. These routes have been designed based on a specific science-related theme, around which a weekend outing can be planned. There's something to explore in every comarca! Through this guide you will learn, for example, among other things, who Professor Margalef

was; how the cannons on the ships that sank in the Mediterranean are recovered and restored; the chemical process that lurks behind the making of a simple cheese; why wetlands were important to the Greeks and Romans; how long to wait before recorking an oak tree; which animal skull is the most sought-after at the Archaeological Museum of Banyoles; or where the Romans mined gold in Cerdanya. When tourism and science go hand in hand, the result is spectacular.

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SUSTAINABILITY ROUTE

LA GARROTXA

Sustainability is a very broad concept that refers to the ability to adapt to an environment from an economic, social and ecological point of view. In this sense, the comarca of La Garrotxa is more than just a land of volcanoes. La Garrotxa is a region with a very special character, one that is very much in tune with its environment and is difficult to find elsewhere. After touring every nook and cranny in the area, we want to underscore its sustainable character, which gives it a unique and different energy at points that provide an example of this virtue.



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2. La Fageda cooperative

1. La fageda d'en Jordà



You can start this route anywhere; they're all good and say a lot about the comarca. We started in Santa Pau. Coming from Olot, on the road that leads to Santa Pau, you will find a turn-off to the right that will take you to a truly magical place. You can't drive on this road without permission, so you'll need, for example, a reservation to visit the La Fageda cooperative.

If you leave your car on the paved road, you could get a €400 fine. It must be true, given how often you're warned about it. A good sign of sustainability is how they do things in this region known for its volcanoes. Once on the road, you understand why the locals in La Garrotxa guard the health of their land so zealously. This beech forest is one of the most beautiful in Catalonia. A bit of trivia - these trees rest on a lava flow from the Croscat volcano. The moisture in the area allows the trees to grow as if they were over 1,000 metres above sea level, when in fact they're at an elevation of just 500 m. When you go there, you have to keep in mind that you're inside the Natural Park of the Volcanic Zone of La Garrotxa. La fageda d'en Jordà is one of the park's 28 reserves. It is spread across the municipalities of Olot, Santa Pau and Les Preses. It gets its name from a verse that the poet Joan Maragall wrote, and which is displayed at one of the entrances.

**Saps on és la fageda d'en Jordà?
Si vas pels vols d'Olot, amunt del pla,
trobaràs un indret verd i profund
com mai cap més n'hagis trobat al món:
un verd com d'aigua endins, profund i clar;
el verd de la fageda d'en Jordà.
El caminant, quan entra en aquest lloc,
comença a caminar-hi a poc a poc;
compta els seus passos en la gran quietud:
s'atura, i no sent res, i està perdut.
Li agafa un dolç oblit de tot lo món
en el silenci d'aquell lloc profund,
i no pensa en sortir, o hi pensa en va:
és pres de la fageda d'en Jordà,
presoner del silenci i la verdor.
Oh companyia! Oh deslliurant presó!**

Joan Maragall 1860-1911

This path that will lead you to the second point is worth a slow walk. In fact, already the beauty of the steep trunks will let you enjoy the journey. If you visit in winter, you will be captivated by their height; in other seasons, the colours will hypnotise you and, as the poet said, you won't want to leave.

Almost two kilometres away from the turn-off is the next destination.



2. La Fageda cooperative



The La Fageda cooperative is a non-profit organisation that employs disabled individuals to make dairy products. Their way of viewing the company within its environment gives it a special character.

Upon arriving, you realise that the frame of mind is different here. You just have to look at how the workers treat one another. It's as beautiful as the setting. This 100% sustainable co-op is surrounded by hills. A dairy farm as an excuse for a project that goes beyond yogurts - which are delicious - and that seeks to provide jobs to people with mental and psychological disabilities. Yogurts are made using only milk from the farm, which is directly mixed with the cultures (a mixture of bacteria of the *Lactobacillus* and *Streptococcus* genera) in the same container that reaches our homes. It is then placed in the oven at about 45°C for 3 hours, where the bacteria multiply and generate lactic acid by breaking down lactose and small amounts of other fatty acids, which are responsible for the final acidity and texture of the yogurt. When the pH is just right, it is transferred to a chamber to cool it quickly and stop the fermentation process.

This co-op is the perfect example of how corporate, social and environmental sustainability can go hand in hand while also resulting in a successful company. An

appointment is required, but it's worth it to see this project and how maximum self-sufficiency is a sound objective. Another example of this is the biomass boilers that are used to heat the farms, and which get their fuel through controlled forest management.

Even though La Fageda brings together different business activities, such as gardening, the ice cream factory, the jam shop or the cattle ranch itself, all of which have this connection to the environment, visits to their facilities offer an excellent opportunity to learn about the product and their vision for a sustainable environment. Currently, they offer a dual visit where the company and park converge naturally, and where you will discover that sustainability is the cornerstone of this magnificent social project.



3. Xarxa espavilada

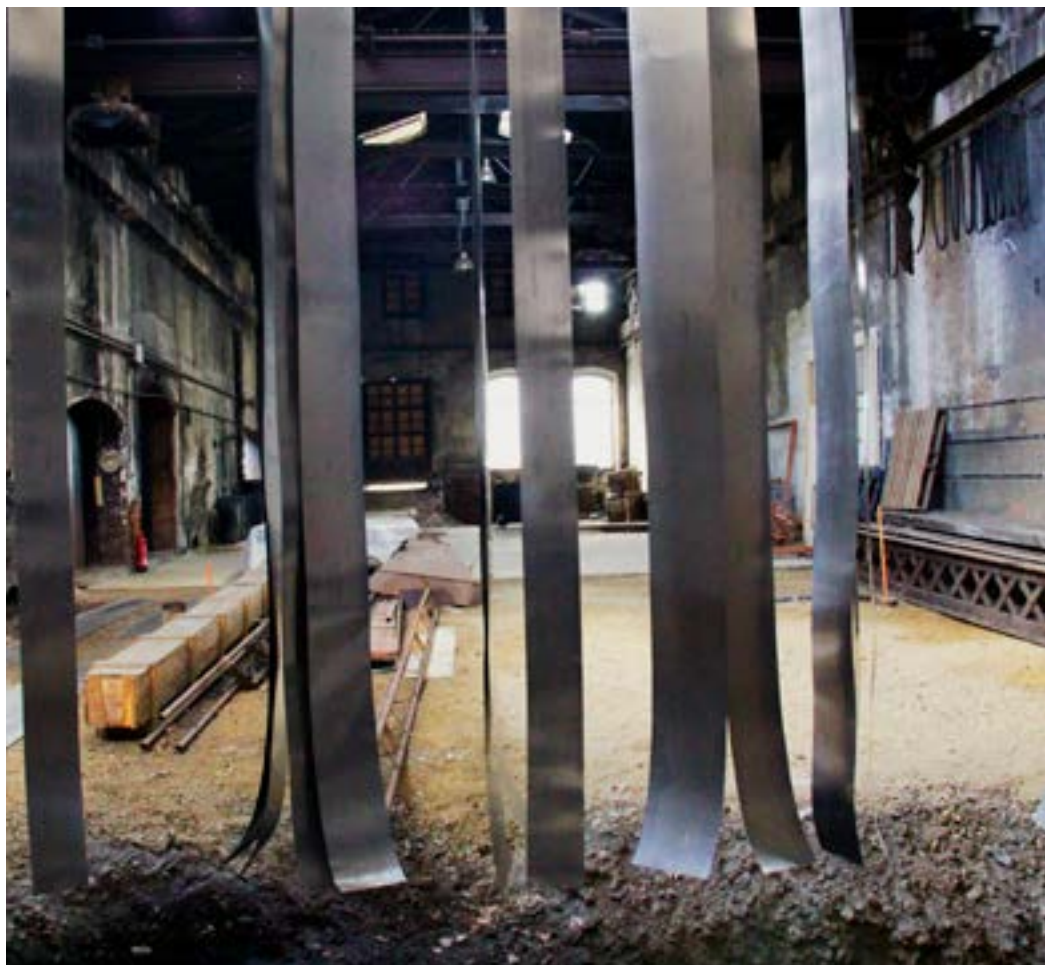


If you're in Olot, you'll know it right away. Visiting this city is a pleasure. The colours of the abrupt and rugged surroundings permeate the houses and streets, squares and every corner of this town. As in any town, the market is the nerve centre of life in Olot, and it's where this part of the route begins. Sustainability is present in municipal management too, and what was once a project of the SIGMA consortium is now reality... and what a reality! Xarxa Espavilada is the first air conditioning network in Catalonia that works based on a hybrid renewable energy system - geothermal, photovoltaic and biomass - that supplies seven public buildings in the centre, including the market. But, in addition, this system has been built in view of pedestrians, who can stand there and understand how a biomass boiler works or the

basic principles of geothermal energy. If you go down to Doctor Fàbregas Street and turn left to Camil Mulleres, in the old hospital of Sant Jaume d'Olot, you will see large windows. If you look through them from the street, you'll be able to peer inside the "generation room". This space houses the brain of the network and much of the technology that makes it possible. Although you can glean some information about how it works from the outside, it's best to schedule a visit at the Town Hall. Once inside, you will learn in more detail how these machines, which demonstrate the environmental commitment of the region and its capital, work, and you will even visit a strategic point where pipes more than 180 metres long, hidden in the car park of the shopping centre, make the geothermal energy possible.



4. RCR Arquitectes



Anyone who thinks that sustainability and aesthetics are incompatible will be pleasantly surprised when they visit RCR Arquitectes. They offer magnificent guided tours that let you take in the creations of Rafael Aranda, Carme Pigem and Ramon Vilalta who, for more than 30 years, have worked to transform the landscape of La Garrotxa, all while endowing it with value and beauty. When you arrive, you'll find a warehouse that, from the outside, doesn't look like it houses the headquarters of one of the most award-winning architectural firms in the world. But it's the right place, even if you think you've made a mistake. We recommend not taking Marià Vayreda Street. It's better to take the back street, Fontanella Street. That's where the visit begins. Iron and natural colours are predominant in this eclectic and diaphanous space. When we went, in the entrance courtyard we ran into some refurbished bells waiting for one of the three creative masters to visualise them and find them a home in one of their architectural works.

Those who prefer to travel adventurously and without an appointment can also enjoy the work of these three Pritzker prize-winning architects in the region of Olot.



5. Tossols Basil athletics track



Is it worth visiting Olot just to see an athletics track? Most definitely.

This stadium, located in the middle of a unique natural environment, enhances the landscape that surrounds it and inspires a crazy desire to run and fill your lungs with air directly from the oak forests in the vicinity. There are small, earth-coloured benches, as if taking advantage of the clearings in the forest. The functional equipment is integrated naturally by taking advantage of the slopes. A ramp leading to the track is part of the roof of the changing rooms. The beauty of the track, with 6 lanes and a 400-metre length, will captivate you.

We recommend looking back and understanding the great care that RCR Arquitectes took when imagining this unifying and sustainable space. Large glass windows let you enjoy the beauty of the athletics track from within.

If sustainability is the ability to establish respectful relationships between people and their environment, this point on the route is essential and extraordinary.



6. Pedra Tosca Park



You can reach this park by car on the road from Olot to Les Presses (where you will find a car park to leave your vehicle), or on foot or by bicycle, leaving Olot from Fuentes de Sant Roc on the Olot-Girona bike lane.

People made use of this space and then abandoned it, but in 1998, the municipal council commissioned RCR Arquitectes to recover it with the intention of preserving the activities carried out by our ancestors some 150 years ago.

It will do you good to take a walk on a path inside a park that seems like no more than a trail along some fields and forests, but that was absolutely designed with sustainability in mind. A path that is fully integrated into the landscape, in a delicate and simple way. Full of labyrinths, the paths, dry stone walls and cabins made of volcanic rocks from the Puig Jordà volcano are a sign of mankind's determination to alter a territory and adapt to its exceptional harshness. If you let your imagination wander a little, you'll understand the problems faced by the region's inhabitants in making part of the land arable under those circumstances.

The project by RCR Arquitectes enhances the uniqueness of the landscape and provides a pleasant surprise. Narrow strips of steel run along the space, and sometimes hold the

mound of rocks from side to side. These straight shapes of steel that mark the path stand in stark contrast to the disparity of shapes they hold inside.

The Pedra Tosca Park represents an authentic example of sustainability, viewed as a relationship of adaptation between the inhabitants of La Garrotxa and the environment that surrounds them, but it is also a unique witness to the use of pumice, protagonist of a period in our history.



7. The Croscat volcano



According to the Club of Rome, sustainability is based on meeting the needs of today's population without compromising the resources and possibilities of future generations. This point on the route is a good example of this: if we were careless in terms of sustainability, we can always go back and improve management for future generations. Such is the case of the Croscat volcano.

The Croscat volcano, considered for many years to be the youngest in the volcanic zone, had two eruptions. The first and most important was 17,000 years ago, and the second, 11,500 years ago. It is a Strombolian-type volcano, characterised by the emission of fluid lavas and the moderately violent ejection of magma fragments, which are called pyroclasts. In the case of Croscat, these fragments covered a surface area of 20 km² and accumulated to form a cone 160 metres high. The crater, which is not visible from any point along the route, has a horseshoe shape and is about 600 m long, with a maximum width of 350 m. From the central part of the route you can see the inside of the volcano. The removal of lapilli over many years has resulted in the cut that you can see, which is more than 100 m high and 500 m long. These are the so-called gredales (clay fields). The original colours are the darkest ones (black and grey), which later transition to reds and oranges due to oxidation reactions.

At the top of the volcano are the remnants of a communications tower from the last century.

The clay fields of the Croscat volcano were restored in 1995 in order to clean up the degraded area, minimise the impact on the landscape, avoid erosion and organise public access for educational purposes. This restoration did not go unnoticed, winning an FAD award for decorative arts design.

Access: pedestrian route #15 Gredales del volcán del Croscat (2.9 km, 50 min.), leaves the car park in Santa Margarida, road from Olot to Santa Pau, km 6.1, on the right. Route #1, Fageda d'en Jordà-volcano of Santa Margarida-volcán de Croscat (11 km, 4 h), also goes to the volcano from the area of Can Serra (Fageda d'en Jordà) along a 5 km, 1 h 40 min (round trip) route. Access by motor vehicle is strictly prohibited. Failure to observe this restriction is subject to a €400 fine.

If transporting disabled individuals, permits to access the Centre of Can Passavent by car are available from the Natural Park of the Volcanic Zone of La Garrotxa.

