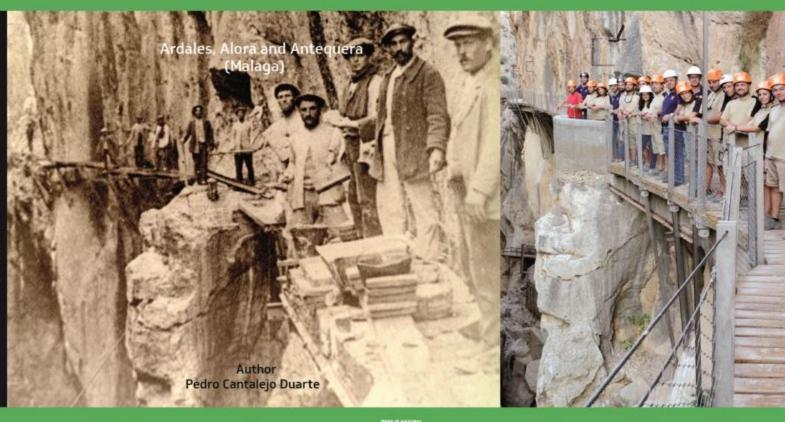
Desfiladero de los Gaitanes CAMINITO DEL REY (El Chorro)

Gran Senda de Málaga









到一个一方式之**一个**对点也是一种的一种的对象的对象。









Ayuntamiento de Ardales



Exemu



Excess.





VISITOR GUIDE OF

Desfiladero de los Gaitanes CAMINITO DEL REY (El Chorro)

Ardales, Alora and Antequera (Malaga)

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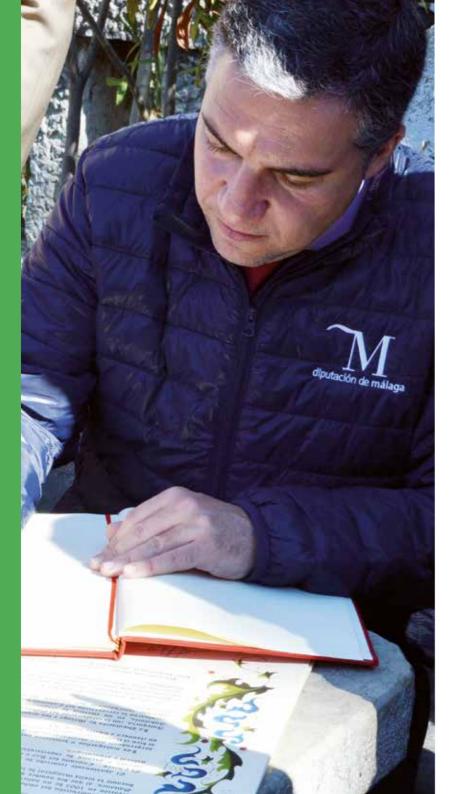
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Presentation

he reopening of the *Caminito del Rey* trail has not only provided a socioeconomic spur for Malaga, but it has also enabled certain natural and historical values, that were out of reach for the citizens, to be incorporated into the regional heritage.

The priority amongst the objectives of this project was regaining human transit on the lost boardwalks. However, this ambitious project enabling visits to the interior of the *Desfiladero de los Gaitanes* Natural Site to resume, must continue to develop until this trail becomes a cultural and touristic attraction for everyone to enjoy.

The purpose of this guide is simply to provide a helpful guide to anyone who feels daunted by Desfiladero de los Gaitanes, regardless of the nature of their interest in it, whether that be sportive or touristic, the geological formations, understanding the behaviour of the rivers, the ecological value of the site, its archaeological sites, its association with the industrial origins of Malaga, the role of its historical figures, etc. excluding any descriptions, written or by images, of elements the visitor cannot see while walking the normal trail.

The contents of this guide have been produced using didactic language to make it easy to read before or after the visit, or even to be used as a consultative guide during the visit itself, as they have been broken down into subjects. The subjects cover both general and specific aspects and remain true to the reality supported by scientific data. We have mo-

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ved away from the unfunded legends which, as is the case with any historical site, have become part of the repetitive formulae used by a few amateur guides who have risked their lives entering the area in the past.

Hiking based on cultural interest is an activity of major strategic importance for Malaga. With the creation of the Great Path and the Coastal Path we have provided citizens with hundreds of kilometres of pedestrianised tracks which allow for the unrushed discovery of a new side of Malaga that links villages with Natural Sites and the latter with natural or heritage-related monuments. This network attempts to raise the value of our territory, our landscapes and our historical heritage within a framework that is simple, open and connected to the many local companies that support this path, providing access to the very essence of Malaga.

Within this mesh of trails, the one being revealed to you in this guide stands out in the very centre. This path runs through the very beautiful precipices of *El Chorro*, which was first discovered in the 19th Century by the train travellers coming into Malaga and rediscovered later on, at the beginning of the 20th Century, thanks to Engineer Benjumea and the boardwalks he designed and constructed on the walls of the gorge opposite the railway.

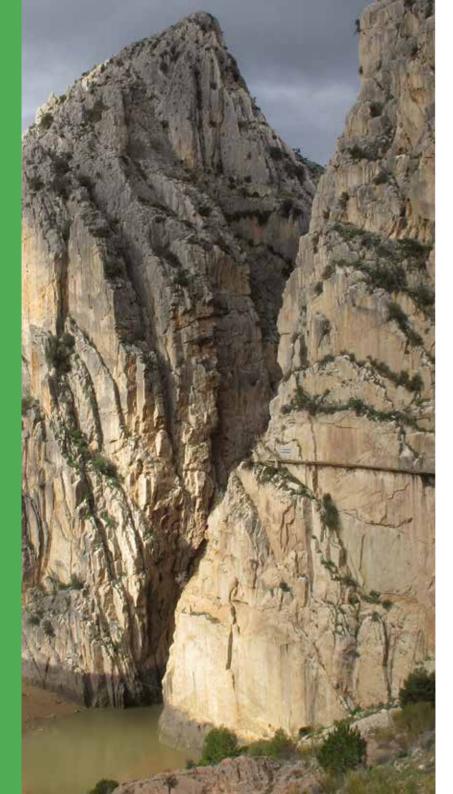
The feeling of satisfaction on obtaining a conciliating spirit amongst the numerous institutions involved in its recovery is one of the joys that I will carry with me for the rest of my life. Giving back to the citizens a piece of the highest mountains of Malaga and converting it into an international touristic brand name is an added satisfaction which I share with the technical teams of the Malaga Regional Council, as they have worked hard, supported by the enthusiastic Town Councils of Ardales, Alora and Antequera, and without which the accomplishment of the entire project would have been unthinkable. Not least was the support of the Andalusian Regional Government and its Department for Environment, who were able to combine their care for preservation with

their enthusiastic belief in the social recovery of the Natural Site. The support granted by national and international awards is the result of a well-planned project that has also been well accomplished and efficiently managed, and that may be an example for future generations of a new model for the maximisation of our natural and historical resources.

Therefore this guide will help the visitor in their tour of the area, but also will be a document providing the reunification of society with a place that was, a century ago, the pride and joy of a cutting-edge Malaga. As a leader in one of the most powerful industries of the Twenty-First Century, Malaga is again a thriving region; one relying on a unique climate, over one hundred kilometres of Mediterranean coasts, magnificent natural spaces, historical sites dating from Prehistoric times, extraordinary cuisine, a hotel infrastructure meeting all international standards and one that is full of entrepreneurial people who rely on the somewhat undervalued tourism industry.

Anyone living or visiting Malaga can use one morning or afternoon to walk Desfiladero de los Gaitanes via the Caminito del Rey trail, and what would be better than doing so while being provided with the relevant information and the knowledge of how, when, why or by whom. Let yourself be guided by the information while walking the boardwalks that will reveal to you the full power of nature and the dissent of humans to surrender to it.

We hope you enjoy your journey through these pages which will hopefully make swift reading and create within you a yearning to return to Malaga.



Introduction

Beyond the extreme importance of the Malaga-Costa del Sol brand name, the inland areas of the region have become an attraction for a type of visitor wanting to experience the nature and heritage of this Mediterranean region in Southern Europe, with an interest in the shape of its mountains and valleys, its geological and environmental values and its history and traditions.

In the midst of the Ardales, Alora and Antequera villages is the emerging point of one of the most relevant geological phenomena in the South of the Iberian Peninsula. This area is situated less than one hour's drive from Malaga, Antequera, Ronda and Marbella and less than two hours from Granada, Cordoba, Seville or Jerez de la Frontera. Defined on the maps as the confluence of the reservoirs of the Guadalhorce hydrographic complex, the easiest access is provided from Andalusian road A-357 (Malaga - Campillos), through the junction situated one kilometre from the village of Ardales which provides access to the area.

Based on the importance of its natural phenomena, one could be forgiven for thinking that the unrivalled highlight of *Desfiladero de los Gaitanes*, the site also known as *El Chorro*, is nature itself, however, at the risk of sounding completely paradoxical and anthropocentric, it is in fact its human legacy that has turned the site into one of the best tourist, cultural and environmental destinations in Spain, moving from being "the most dangerous trail in the world" to one of the best experiences in Europe for Active Tourism. This new



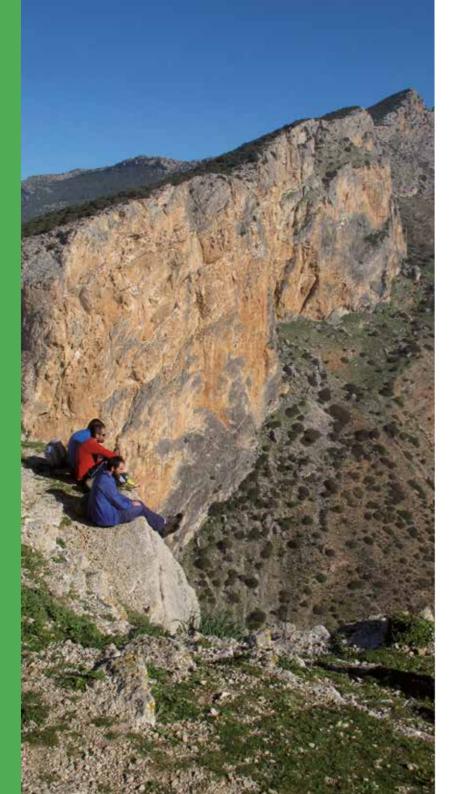


destination relies on the contributions of numerous institutions, which made it possible in the spring of 2015 to reopen the boardwalks that had been inaccessible for the last forty years due to deterioration, and make it possible to visit the heart of the mountains at *El Chorro*. With this new chapter a mention is owed particularly to the Malaga Regional Council, which accepted the challenge from the start, the Town Councils of Ardales, Antequera and Alora, which contributed their efforts as well as their territory; and the Andalusian Regional Government which made sure that all the actions taken were positive for the entire area classified as a Natural Site.

The purpose of this guide is, therefore, to provide everyone intending to walk the *Caminito del Rey* with a didactic and easy document, which may be used as background information or an after-visit memory of their trip to these sites that are full of natural and human charm. None of the sections in the following pages include supplementary private touristic offers, although plenty exist in each of the surrounding towns and villages. The visitor can obtain supplementary information from the Tourist Offices of the contributing towns and villages or from the Internet prior to the visit.



Luis Machuca, an Architect, during the construction process of the new boardwalk



Desfiladero de los Gaitanes gorge, a protected site

he *Desfiladero de los Gaitanes* Natural Site occupies a territory of over two thousand hectares within the area known as *Sierras de El Chorro* mountains. Three villages contribute part of their territories to this protected site: Ardales, Antequera and Alora. This Natural Site –which became legally protected by the Andalusian Regional Government in 1989 –includes mount *Monte Almorchon*, the canyons and the central valley of *Desfiladero de los Gaitanes*, as well as the walls of gorges *Tajos Ballesteros* and *Estudiantes* and the peaks of *Sierra de Huma*, all of which are extraordinary geological phenomena which also host vegetation and wildlife of inestimable ecological worth.

Whereas nature is the unquestionable centre of attention at this Natural Site, the historical heritage of this area of Malaga constitutes a connecting thread between the ecological niche and human beings, allowing an understanding as to why a place that is apparently so hostile to people has been used on an ongoing basis for over seven thousand years since the Neolithic times

So, not only must we be astounded by the overwhelming geological scenery or the impressive work accomplished with the boardwalk hanging from the vertical walls over the river, we must also appreciate the railway history or the history of electricity in Malaga which began here, or its great technological challenges, as well as the certain specific works such as the aqueduct bridge built by Engineer Ribera, which was made from reinforced concrete and hung one hundred





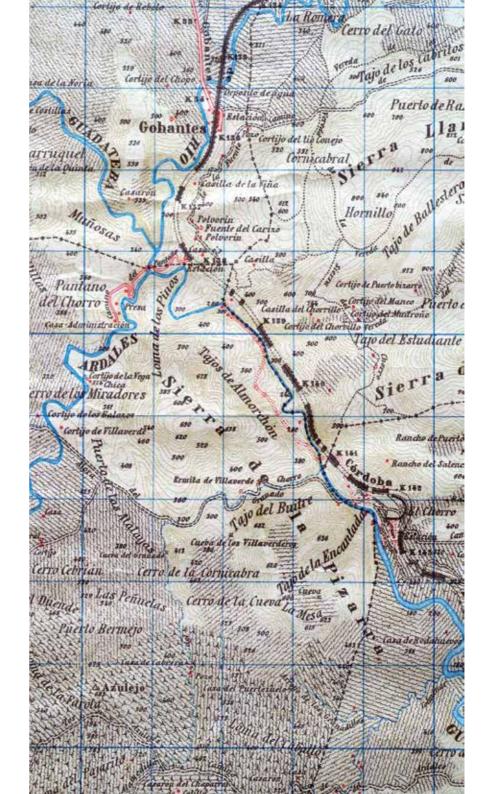
metres over the precipice, amongst many other attractions.

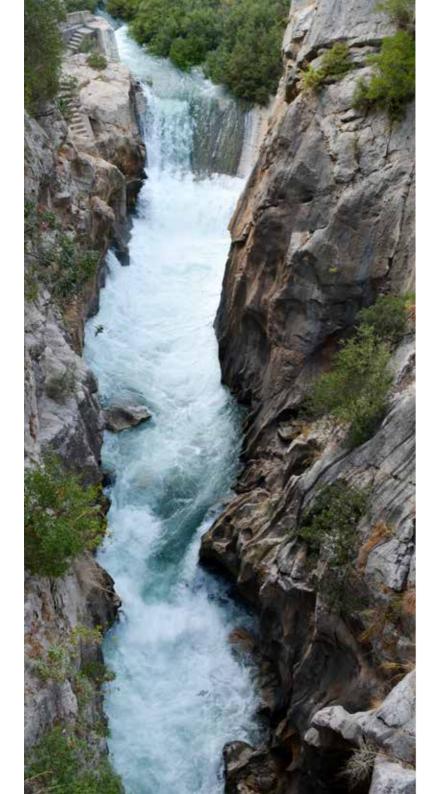
This set of natural and historical values make the *Des*filadero de los Gaitanes Natural Site one of the most relevant destinations for ecological and cultural tourism in Spain.

Visiting it without enough information would make it turn it into the mere practice of physical exercise. However, the idea is yet another. The reason behind the conception of a guide available to people wishing to know more about this unparalleled corner of Malaga was to make the route through the nearly eight kilometres of mountain walks or hanging boardwalks an unforgettable visit, where the visitor understands where they are, how the place came to be formed geologically, how it was used —and is still used —by humans, and why it is protected as a Natural Site. A route with many details that will be broken down in a guide that is readily available to anyone fascinated by *Caminito del Rey* and *Desfiladero de los Gaitanes*.

Notes on the geological features of *Desfiladero de los Gaitanes*

The geological complexity of this site is perceived from the start. The mystery surrounding the formation of these vertical canyons cut through by the course of the river has led many authors to attempt to describe this phenome-

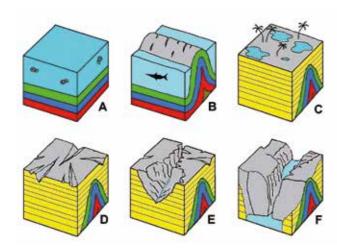




non by using scientific parameters that are very complex for the lay person to understand. This, in turn, has caused the additional issue of errors being incorporated in the explanations given to boardwalk visitors during their tour.

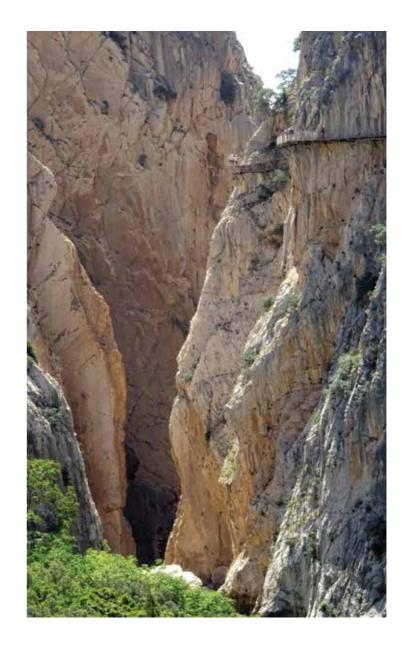
One of the most common errors is that the finding of fossils has revealed that the sea reached the summits of these mountains; up to the Huma Summit, Tajos del Almorchon, Tajos de Ballesteros or the walls of Desfiladero de los Gaitanes themselves. However, the existence of marine fossi-Is does not prove the hypothesis that the sea reached these summits, but rather the fact that millions of years ago these summits were actually the bottom of the sea. In other words, it was not the sea that lowered its level, but the mountains that emerged from the sea bed to reach the height they are at present. This logical behaviour of nature is what made it possible for such deep canyons to come to existence. It was not the water that lowered its sharpened blade and cut a shape into the mountains, but rather the mountains, as they progressively emerged, channelling a flow of water that was first sea water and then fresh water, which caused such deep cuts. Therefore, the sea level never reached these heights, but these sea sediments emerged, were fragmented and scattered during the process of a geological rise to progressively form what today is the South of the Iberian Peninsula. The final result being what we know in geological terms as the Baetic Mountain Range, a solid mountainous barrier that divides the Mediterranean Andalusia (in the South) from the Atlantic Andalusia (in the North). The main destination of the rivers born in the slopes to the North of the Baetic Mountain Range is the Guadalquivir river, which channels nearly all the river courses from Upper Andalusia. Whereas the southern area below the Baetic Mountain Range is made of numerous short rivers which flow out to the Mediterranean Sea. from Almanzora (Almeria) to Palmones, in the midst of the Strait of Gibraltar (Cadiz).

However, there is no rule without exception and the



exception here is the three rivers that join together at the start of *Desfiladero de los Gaitanes*, as they are born from the slopes at the North of the Baetic Mountain Range but the three of them flow together through the canyons of *El Chorro*, to the south basin, flowing out to the Mediterranean Sea. The three valleys joining together at the start of the canyons are:

The valley of the Guadalhorce river, which is born in Puerto de los Alazores (boundary between Granada and Malaga) and goes through Villanueva del Trabuco and Villanueva del Rosario, entering La Hoz de Archidona, levelling out through the Antequera depression to reach El Chorro. According to hydrogeologists this is the last river that joined the others at the Gorge and this phenomenon probably took place in the quaternary period. In its origins it may have even been an affluent of the Genil river and therefore of the Guadalquivir river, but the regressive erosion of the canyons gained it for the gorges of El Chorro, truly acting as a funnel inside Malaga.

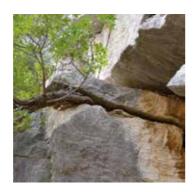


The valley of the Guadalteba river, which is born in the ridges situated at the North of the Ronda Mountains, between Serrato, Cañete la Real and Almargen, partially running through the valleys of the Intrabaetic Basin which span to the lands of the Teba river from West to East, ending in the former village of Peñarrubia (currently, Campillos), meeting the other two river courses at the start of the canyons.

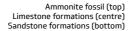
And the valley of the Turon river, which is born in the North side of Sierra de las Nieves hills, in El Burgo area (Fuensanta is one of its fountains) and runs through Ardales. Its river bed is at the lowest level of the three, which is the reason geologists believe this was the first river to meet at Desfiladero de los Gaitanes, replacing the erosive action of the sea water by fresh water erosion approximately 5.5 million years ago.

This is why, although the importance of the rivers is transcendental, they do not constitute the origin of these peculiar canyons. Ac-











cording to geological studies, it is the sea water level difference between the water remaining to the north and the water left to the south of the first emerging limestones that originated the cliffs in the shape of a "paleo-strait", or the flow of water from an inland sea that remained in the north pouring its water south into another sea that would later be called The Mediterranean Sea.

Formation of these sea cliffs, turned into river canyons a few millions of years later, has left indelible marks on the trail, which can be seen from *Caminito del Rey*. Defining this and other issues relating to the natural origins of the Gorge forms part of the content of this guide. We will break down the information starting with the large formations down to the smallest vestiges in our attempt to ensure that the trail is a cultural experience.

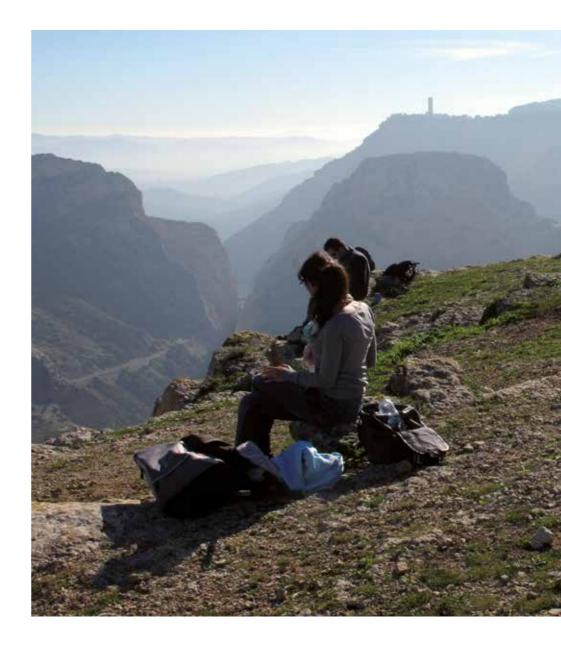
The geological evolution of the site could be broadly summarised in three successive deformations of the land, which resulted in the current landscape following millions of years of ongoing change.

- The limestones and dolomites (marbles) that were marine sediments and emerged from the Jurassic period onwards at the time of the general rise of the Andalusian Baetic Mountain Range.
- The marlaceous limestone from the Triassic period, which is present to a lesser extent in *Desfiladero de los Gaitanes*, but occupies intermediate spaces amongst the larger geological formations.
- Sandstone and conglomerates deposited during the Miocene period. These are again marine deposits that occupy the external areas of the Gorge (Almorchon, Gaitanejo and *El Chorro* sta-



tion), which in their final rise caused the paleo-strait that poured sea water from today's upper Guadalquivir river to what is currently the Mediterranean Sea. There is a good probability that the rivers began to flow through the emerging canyons of *Desfiladero de los Gaitanes* over five million years ago.

This process of progressive rising that took place over two hundred million years remained restricted to a relatively small and spectacular geographical space, which thanks to the current infrastructures, can be visited without difficulty. We may consider this place as one of the most remarkable geological milestones of Malaga and, together with Torcal de



Tajos del Almorchon above the Gorge

Antequera, Sierra de las Nieves and the group of large caves of Malaga; we may be able to offer the visitor a magnificent repertoire of geological formations of water origin.

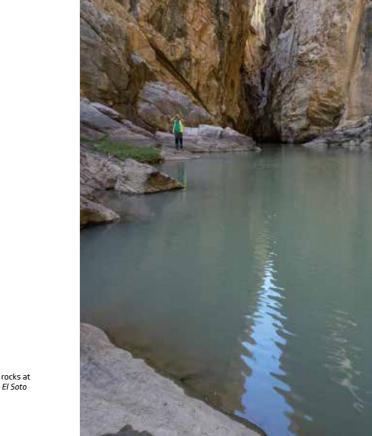
Living nature: vegetation and wildlife in *Desfiladero de los Gaitanes*

One of the most relevant features of the type of nature protecting these canyons is the fact that it is situated in an enclosed ecological niche –vertically laid out to a great extent – keeping vegetation and wildlife specimens of high ecological interest "imprisoned".

The vertical limestone strata –very fractured with joint systems (cracks that have become wider by the erosive action of water)- host a type of rock vegetation that has adapted to vertical living with scarce nutrients and a microtopography that, in practice, conforms to extremely reduced ecosystems that include a great number of species in only very few square metres.



Ashes at the banks of the river



These ecosystems try to make use of certain vital conditions that would be impossible if they were situated a few centimetres further. This look-alike vertical garden bursts with species and colours during the entire springtime. From the boardwalk it is easy to see hundreds of small plant groups, many of which are particularly interesting due to their scarcity. All the plants in the *Desfiladero de* los Gaitanes gorge are protected, however, some varieties are also classified as endangered due to their extreme rarity and all of them are present along Caminito del Rey: Rupicapnos africana, Sarcocapnos baetica (commonly known in Spain as the Lord's shoes), Campanula mollis (soft bell-flower), Chaenorhinum rubiflolium or Cytisus moleroi (broom). But not all the species found in the area have been studied yet, on the basis that Botanists, like other visitors, have been forced to wait forty years to explore these canyons.







Rupicapnos Africana (top) Micro view of plant world (centre) Orchids (bottom)

Woods in Gaitanejo (right)









Large Aleppo pine tree (top)

Ancient juniper tree (bottom)

Amongst the trees that can be seen during the visit, the following are particularly worth a mention: the ashes of the river banks at Gaitanejo, together with the willows and the poplars, always accompanied by bulrushes, African tamarisks, common reeds and the rubus species. Within the section occupied by the canyons there are hanging specimens of olives, Phoenician junipers and mastic trees; some common junipers, terebinths and retamas mix together with the afforested Aleppo pines in the Hoyo valley. Additionally to this wood-type vegetation, there are also carob trees, which were introduced into this enclosed valley in the 13th Century.

On the other hand, the wildlife that lives under the protective umbrella of *Desfiladero de los Gaitanes* is very varied and adapted to diversity, sharing in only a few square kilometres, areas with rivers, fountains and springs, fluvial terraces and some river beaches, foothills, vertical walls, narrow canyons, escarpment and caves. The diversity of this habitat can be seen in the incredibly large variety of species present, where birds stand out for their large numbers: cormorants, common egrets, mallards and Eurasian coots, which use the water medium; nightingales, using the tree areas beside the river; Eurasian jays and booted eagles can be seen in the pine tree areas, together with great tits and great spotted woodpeckers. At the canyons and walls, common house martins and Eurasian craq martins, alpine swifts and red-billed choughs are very common, as well as rock pigeons. Visitors can also see Bonelli's eagles and golden eagles hunting in the area of Hoyo and Tajos del Almorchon. On the large open walls of *Tajos de Ballesteros* the most common are scavengers such as griffon vultures and sometimes Egyptian vultures, occupying the highest nests and resting areas. Up until 1920 there were bearded vultures (the Museum of Natural History of London has some stuffed specimens and eggs of the latest individuals inhabiting these canyons amongst its collection).



The most common mammals are the cave bat, the mountain goat, the fox and recently in the Hoyo valley, some wild boar specimens. Amongst the amphibians, the Perez's frog and the toad (amongst which there is the Iberian painted frog, which lives in the Hoyo pool).

The reptiles that are easier to see are the Iberian wall lizard, the viperine water snake, the horseshoe whip snake and the ocellated lizard. And finally, the fish we can find in these waters -which sometimes flow with strength and others slowly- are Iberian nases and barbels. It is interesting to mention that the work of archaeologists in the area has also revealed the presence of salmon and eel, two migratory species which use the sea and the river in differing ways: salmons live in the sea and work their way up to the Desfiladero de los Gaitanes gorge for spawning and eels usually live in the river and travel down to the sea for reproduction. Fishermen used to visit the end of the first canyon, i.e. El Soto to catch eel until the 1970s. In one of the Neolithic caves a needle made of the fishbone of a salmon was found and reported to have been used seven thousand years ago. The construction of the various dams more than forty years ago hindered the cyclical use of the Gorge as an optimum river ecosystem.

Outside the canyon areas of the Desfiladero de los

Gaitanes gorge, the multiple geological and water systems of the Natural Site have allowed enormously varied vegetation and wildlife which have been described in several specialist publications.

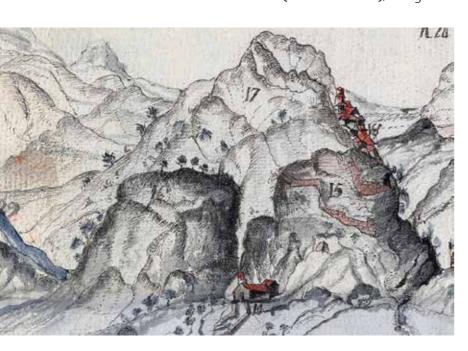
Visitors to this Natural Site can simply experience nature in their visit, or be much more coherent by trying to become part of it through conservational behaviours. An attitude of respect for a place like this one is taken for granted, and therefore the next step is to act accordingly and lead by example for the children and adolescents who are increasingly visiting this natural space, allowing them to enjoy each of the gestures that connect us with this unique natural environment.



Brief history of *Desfiladero de los Gaitanes, Caminito del Rey* and their historical figures

Toponymy (the study of place names) has a very special interest in the cultural knowledge of significant places. In our case the place names of these areas are very peculiar and remind us of certain natural phenomena that made up the names by which the various areas associated with these canyons are known today:

- Desfiladero de los Gaitanes, Tajos del Gaitán or Gaitanejo: refer to the Gaitán, which is an old name for the predator that nowadays flies over the entire area. So, when we call the area Desfiladero de los Gaitanes, we are associating it with the large scavengers that used to inhabit and still inhabit this Natural Site: The bearded vulture (extinct in 1920), the griffon





vulture (very abundant at the walls of Tajos del Almorchon and Tajos de Ballesteros gorges) and finally, the Egyptian vulture (which appears and disappears from the area due to the continuous aggressions it faces outside). The term *Gaitán* appears in one of the books written by King Alfonso XI in the Fourteenth Century on the subject of hunting.

- El Chorro (the jet): is the generic name that currently refers to the Gorge, the train station in Alora and the reservoir opened by Alfonso XIII in Ardales. Traveller Francis Carter, back in 1731, makes a significant reference to El Chorro: the waterfall formed in the river on its leap between the enormous walls. It is actually the name given to the effect caused upstream in any of the three river basins that flow together down the gorges when there were major storms and the water levels experienced an extraordinary rise. The exit pressure of these waters at the furthest of the canyons used to cause a natural effect in the shape of a jet that was as attractive as it was dangerous, because it was followed by the terrible floods of the Guadalhorce river on its way through the entire area of La Hoya (Alora, Pizarra and Cartama) and its mouth in Malaga. The dams that were subsequently constructed managed to control the river's rise and the frequent floods. It was logical for the locals of the *Hoya de Malaga* area to comment in concern: "El Chorro has burst", when talking about the flooding phenomenon that followed the storms at the river sources, which was suffered by the areas situated at the end of the course.

- Cambutas (erosion marks): This place name evokes the great number of giant's kettles or gullies that can be seen at the first and second canyons (Gaitanejo and Tajo de la Paloma gorge) looking down from the boardwalks. The Cambutas are therefore the marks left by the erosive force of the river around one or more large stones that cannot be dragged downstream. The river's course surrounds these large rocks but also the area around their base, causing an involving erosive effect that ends up digging a deep concavity known as a "giant's kettle" as its shape resembles a cauldron. These are very common in the river beds of the two first canyons, while in the first canyon (Gaitanejo) the visitor can also see the partial marks of some giant's kettles that were hanging there and today appear to be the remains of large vertical tubes.
- -Tajo, Cañón, Desfiladero, Garganta (gorge, canyon, ravine, gullet): All of them evoke the erosion caused by sea or fresh water of which the most evident effect is a narrow cut into one or various mountains, in the bed of which a river flows currently. In the region of Malaga there are several similar geological phenomena, such as Cajorros del río Chíllar (Frigiliana/Nerja), Tajo del Molino (Teba), Buitreras del río Guadiaro (Cortes de la Frontera), although none of them bear the significance of the one being described in these pages.
- -Hydropower plant construction works and boardwalks: In spite of the importance of all the hydropower plant building works carried out in the *Desfiladero de los Gaitanes* gorge, it is the boardwalk running above the canyons and the Ribera aqueduct bridge that has become imprinted in the memories of all visitors, due to its unparalleled spectacularity, innovative design and the great social prestige acquired

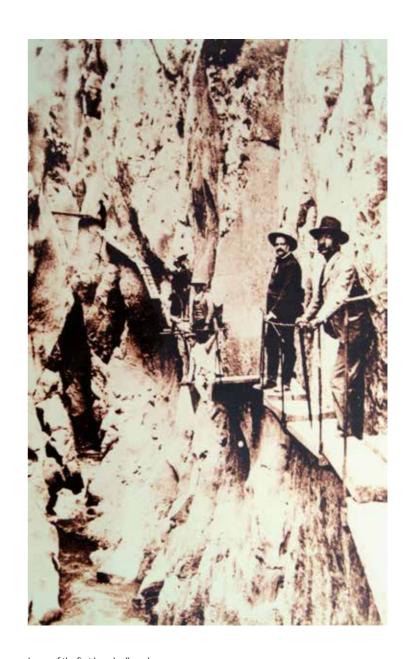
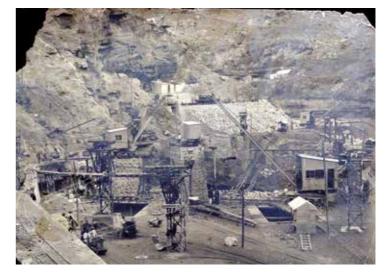


Image of the first boardwalk made of iron and wooden beams, built in order to accomplish the canal construction works



as a means for the visitor to walk the entire vertiginous site. The first boardwalk was designed by Rafael Benjumea (Head Engineer of the works in the entire area of *El Chorro*) with the intention of creating fast access to the interior of the canyons, as support and access to build the canal that would run through the entire Gorge to allow the conduction of water from the access at Gaitanejo to the outlet, causing a 100-metre hydraulic leap near the area of the train station, outside the *Desfiladero de los Gaitanes* gorge, where the hydropower generators of *El Chorro* were placed.

This original boardwalk, built in 1901 using metal rods held with butterfly fasteners, supported sections of thick planks of wood, which incorporated struts that were used to run a rope in the shape of a handrail. This was only used in the first canyon, i.e. Gaitanejo, where some of the metal sections still remain and can still be seen today. Unfortunately, a flood reached the level of the original structure and this had to be replaced by a boardwalk higher-up, which was commonly known as Los Balconcillos (the little balconies)



until it was named *Camino del Rey* (the King's path) and later on *Caminito del Rey* (the King's little path).

An image of this original structure at the stage of construction, in a parallel to the first canal, is still preserved. In the picture the workers pose in a relaxed manner while they bring us closer to the complexity of a construction work that was certainly not carried out by titans but simple workers, many of whom came from the merchant sailing navy dismantled at the harbours of Malaga, Algeciras and Cadiz. It was them who over one hundred years ago made their way through these canyons hanging from ropes and planks of wood only secured by pulleys.

The second boardwalk relied on rail tracks for support which, duly embedded into the walls by the use of fasteners, held a brick and cement platform that was the base of the path. Struts made of iron rods layered with brickwork were added in the shape of square columns. At the first section of Gaitanejo, these struts were extended in the shape of arches and secured to the rock walls as ornaments (probably inspired by the typical Malaga common-rail balconies designed



by Architect Martín de Aldehuela).

This second board-walk, built at a higher level than the last one, completed the last stage of the three sections of canyons by crossing the aqueduct bridge and reaching the rail tracks, finishing off a route that was fifty metres shorter than the one we currently take on the third boardwalk.

No prisoners were involved in the construction of this project or large numbers of workers killed in its completion. Only two fatal accidents have been registered during the entire hydropower plant construction works. which were carried out between 1901 and 1921. One of the accidents occurred when a worker was loading a wagon with the construction materials and the other was that of a dynamite worker. The myth does not honour the workers who were so used to climbina up to the masts of their sailing ships and were real experts in heights at the start of the 20th Century.

Another image is kept in the archives, which is very

similar to that of the workers on the planks of wood, but this one captures a moment during the construction works of the second boardwalk. This image also captures a group of workers and foremen leaning in a relaxed manner on the supportive metal rails. In the foreground, the workers are building the brick platforms and laying the cement flooring. The big structural difference of this boardwalk, the purpose of which was still to allow passage of the workers operating the canal gates, was that this one ended up becoming one of the first adventure tourism destinations in Malaga following the King's visit.

None of the most recognised celebrities in the Spanish political and cultural life missed a visit to the *Desfiladero de los Gaitanes* gorge after the occasion in which King Alfonso XIII visited its first section. From that moment on, its popularity was in crescendo until, at the end of the seventies, the hydropower company of *El Chorro* was taken over by Spanish electricity company Sevillana and the need to replace the old canal with pipes made the boardwalk unnecessary, leading to its abandonment.

The King's visit was perfectly scheduled for the 21st of May of 1921. The royal train, as it was customary at the time, arrived at least two hours late, the guests crowded, smoked and chatted at the only train platform of the old Gobantes station, which disappeared under water back in the seventies, when the construction works for the new Guadalteba/ Guadalhorce reservoirs had been completed, facing the same finale as the Peñarrubia village, to which it belonged at the time.

The entourage drove the Peñarrubia-Ardales road to the tail of the *El Chorro* reservoir, where a speedboat awaited to offer a boat trip from the banks at *Cerro de las Grajeras* to the docking at the Engineer's house. They had travelled slightly over six kilometres by boat when the slight drizzle falling at the start of the visit became a downpour that forced a faster trip up to the marquee that had been prepared above Benjumea's house.



Lunch was provided by a Madrid restaurant and shared by everyone. The Borbon Monarch, demonstrating his empathy, allowed everyone to keep their hats on, as the showers and the wind required it. In the same way, he ordered the Civil Guards, employed there for his safety, to come under the cover of the marguee and eat with everyone else. The chat after lunch was a very short one, because the weather was not improving and the official and important part of the visit was still to be accomplished: the placement of the last stone of the El Chorro hydropower plant construction works. The large group was transferred to the top of the dam, where many residents of the participating villages attended the event, which consisted of the lowering of a large building block with an inscription where coins, newspapers and a commemorative text had been inserted (the block is currently preserved under the latest added section). Later on, Benjumea invited the King to use a polished seat and table engraved in limestone rock in order to sign the document of accomplishment of the construction works. The seat has been known as "The King's Seat" ever since, an emblematic place where all visitors sit down and have their photograph taken as a souvenir.

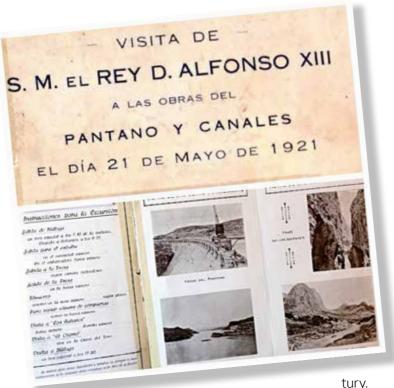
Later on, the Monarch and his large, soaking-wet entourage, made their way to the Gaitanejo dam, to recognise the efficiency of Benjumea as a designer and how he had contributed to this new power technology with aesthetical and te-

chnical additions. In spite of the rain, the entourage entered Balconcillos de los Gaitanes (little balconies) and, as scheduled, walked along the boardwalks to the bridge at Cueva del Toro cave where evervone got on the train which would take them first to El Chorro station to have some tea and then would travel to Pizarra town, where they would stay the night in preparation for the second official day in the city of Malaga. It was much later on when Balconcillos de los Gaitanes was renamed Camino del Rey (the King's path), or *Ca*minito del Rev (the King's little path), as it is currently known in the 21st Cen-

Page with the article on the visit

of the King, including the menu served by a Madrid company





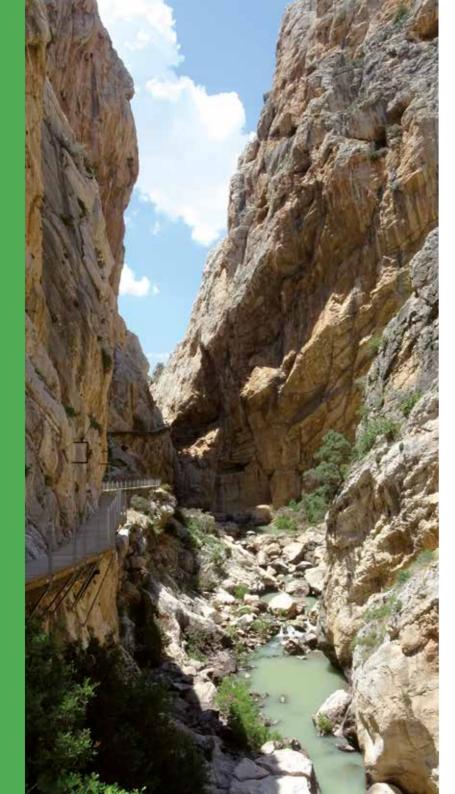
This was also the case of Pantano *El Chorro*, which changed its name

to Embalse Conde de Guadalhorce in 1953. The large limestone slab presiding the access to the current Caminito del Rey and announcing how the Monarch, on visiting the construction, decided to grant Rafael Benjumea the nobility title of Count of Guadalhorce, was initially placed at the Gaitanejo dam, which was the actual great contribution of Benjumea to hydropower technology. It was then transferred to its current position when the first tourists began to visit these areas and the electricity company thought it was more logical to move them away from their electrical systems and veer them towards the boardwalks that were abandoned from then on.

The technical responsibility for the entire hydropower plant network, which today is preserved in the current area of

Desfiladero de los Gaitanes, lay on Rafael Benjumea Burín (1876-1952), an Engineer who during his youth developed a titanic task with the aim of providing Malaga with hydropower. He was wholly dedicated to El Chorro for over twenty years. He is responsible for the design and accomplishment of the construction works carried out in the interior of the Gorge (canals, hanging boardwalks, power stations, etc...) and the Gaitanejo and Conde de Guadalhorce dams, two extraordinary examples of hydraulic engineering at the beginning of the 20th Century. Benjumea has gone down in history for being able to build without destroying, for his adaptation to nature and his ability to bend it at the same time as working in its favour, for trusting new technologies and applying them using the best engineers, and for placing so much trust in his own project which he paid for using private funds.

The multiple aesthetic details found in his many works prove that Benjumea was in fact an engineer but also an artist. The finishes of his structures, those with industrial purposes but also those to be used as accommodation, offices or warehouses, were all designed with exquisite taste, in the same way as the several steps and stairways that are included in many of his pieces. In fact, the boardwalks themselves which we know as *Caminito del Rey* were not only designed as a passage for workers, but their brilliancy as an emotional journey relies to a great extent on Benjumea's concept of scenography. This concept always proved very useful to Benjumea when receiving the many visitors he had. His visitors, surprised by his impressive experience, would unreservedly support his business causes. When we visit the Gorge today using the route he designed, a good part of the sensations we experience are owed to his creativity.



The Visitor Centre and essential information

he Visitor Centre situated in *Puerto de las Atalayas* is the meeting point where we can park our vehicle and obtain the essential information required to begin the tour of this place that has become a real hallmark for hikers and active tourism in Spain.

The building, designed by Luis Machuca (the same author of the *Caminito del Rey* project), is a prelude to the structures to be found inside the canyons. Steel, wood and glass are the basic components used in this centre which is situated at a natural Roman and Medieval crossroads, where remains can still be found of an over six thousand-year old Neolithic village. Its qualities as a lookout over mountain foothills to the East and the *El Chorro* reservoir to the West are no less valuable than its purpose to serve as a relaxing prelude to relieve the stress that we often accumulate.

Receiving preliminary information for the visit is very important and the centre provides audio-visual materials to help the visitor understand in just a few minutes the significance of this place as an attraction for a wide range of visitors, i.e. those with an interest in nature, geology, archaeology, history, the historic figures involved; those with a passion for heights or precipices; those enjoying engineering or photography, etc.... For all of them, a visit to the *Desfiladero de los Gaitanes* gorge via its *Caminito del Rey* trail will become an unforgettable experience. In the same way, the staff working for the management company will personally advise the visitors on the conditions for the visit. Additiona-



lly, the building is equipped with a cafeteria and a souvenir shop.

From the car park, the shuttle buses will take you to the access path, which is the official starting point of the walk that will lead us to our final destination: *Caminito del Rey.*

The access paths: The Chorro/Conde de Guadalhorce dam

In the access area to the *Caminito del Rey* trail, coming from the road beside the reservoirs, two trails have been proposed with the same destination of the access control booths to the trails: *Puerta Norte* (the North Access).

A- Access through the shortest trail (1.7 km) is gained through a forest trail used by the motor vehicles of the institutions involved in the management of the site (the Department for the Environment, electricity company *Endesa* and the *Caminito del Rey* management company), however we must travel it on foot, it is easy and downhill.

Computer graphics of the visitor centre (top)

Access path (right)



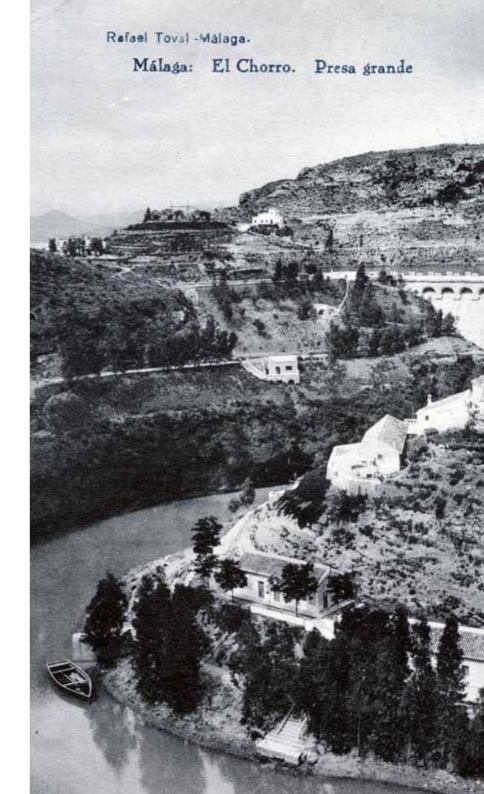


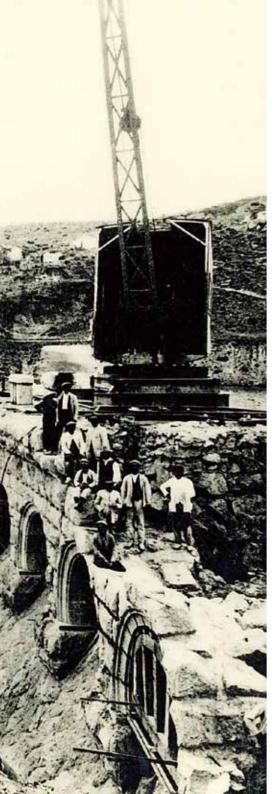
It starts at the road from which visitors will enter a narrow tunnel, only intended for pedestrians. This is another relic of the industrial past of the entire area. This was an attempt to shorten the route for vehicles that joined together the road of the *El Chorro* dam with the Gaitanejo Power Station, but financial reasons forced an alternative route going up the Cerro de los Miradores hill. The narrow tunnel is approximately two hundred and ten metres long and it forms one of the first impacting experiences of *Caminito del Rey*. It is totally straight and when the visitor begins to walk it, they will have the impression that it is shorter than it actually is. In addition, the tunnel serves as the border between the urban world and the interior of the Natural Site, taking the visitor from the noise of the traffic into the silence of nature in less than five minutes.

The walk through the access path facilitates the view of the river course from high up. This is the course of the three rivers that joined together not even one kilometre earlier, under the large dams that hold their waters like a treasure. An area of significant river vegetation stands out against the afforested pine trees. It is the native ash, willow, reed and oleander that are predominant on the two banks surrounded by large walls, first composed of sandstone from the Miocene period and Jurassic limestone at the end of the trail. Once the tunnel has been crossed, the entire access path takes approximately twenty minutes.

B- The second option leading to the North Access of Caminito del Rey gives the combination of 2.7 km of nature with the construction works of the hydropower plant and the history of El Chorro, allowing the visitor to understand the water circuit that Benjumea thought out and constructed between 1901 and 1921.

The starting point of this unrushed access to *Desfiladero* de los Gaitanes takes the visitor to Sillón del Rey (the King's Seat), the place where the certificate of accomplishment of the construction works for the hydropower plant was signed





by His Majesty the King Alfonso XIII.

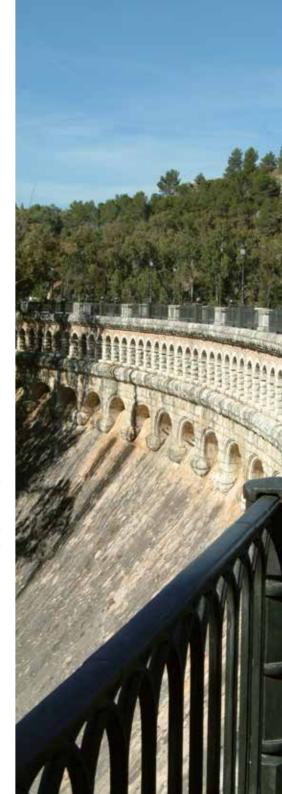
From this viewpoint we can see the remarkable engineering works of *El Chorro* dam, which is currently known as *Conde de Guadalhorce* dam.

Built between 1914 and 1921, the dam allows for storing the waters of the Turon river which winds down from Ardales. The dam was built at the first canyon cutting into the Miocene sandstone rocks in order to prevent the complex leaks that limestone rock causes in any hydraulic system or underwater aquifer. It is made of cyclopean concrete, with an interior filling of large sandstone blocks and the exterior being limestone fitted blocks with a carved masonry finish. The current height above the foundation is 74 metres, although what the visitor will see on looking on to the apex of its 160-metre long arch is approximately fifty-five metres above the waters that flow downstream. The total cost of the construction works for the dam was 12 million of the former pesetas (approximately 72,000 euros).

The current dam is the result of the section added by the son of Engineer Benjumea between 1945 and 1947, which in practice means that the King's Seat is four metres above its original position and the water currently stored is 66.5 cubic hectometres.

Opposite to the magnificent hydraulic system construction, Benjumea built the "Administrative House" which was partially an occasional residence for Engineer Benjumea but after a while it no longer served its purpose. At present, although it does not serve any purposes as far as the Department for the Environment of the Andalusian Regional Government is aware. it is nonetheless well taken care of by the current managers of the Guadalhorce Dams complex.

The trail starts at the King's Seat and ends 2.7 km away at the control booth of the North Access. This track is much more comprehensive and is fully pedestrianised.





It takes the visitor along the right margin of Gaitanejo, at a certain height first, allowing a view of the Gobantes Power Station, which originally was the first pumped-storage power plant in Spain. A little further, amongst a pine forest, the visitor can see the gigantic structures of the outlet springboards of the Guadalteba/ Guadalhorce dams.

Slowly, the trail takes the visitor closer to the very interesting river forest, where the ashes stand out for their height and lushness, offering outstanding colours and dense tree tops. The visitor is advised to stay alert here, as depending on the time of the year, they may hear and catch sight of birds such as nightingales, cormorants and mallards.

At an old meander the visitor can see the very badly kept remains of a cave house, one of the many Troglodyte Mediaeval houses that were reused during the construction of these hydropower systems. This is known as the *Cueva de Gaitanejo* cave, which preserves the traces of what used to be the "body of the house", the barnyards, the oven and the warehouses. At the level of the long and narrow Gaitanejo reservoir, a vertical wall revealing the traces of strong erosion will certainly draw the attention of the visitor on the oppo-

site bank. This wall is known as "the Gothic Arch", in spite of its shape not belonging to this architectural style. This is a "tafoni", a mass of compressed clay amongst the sandstone conglomerates which is dissolved by the water and wind that it is in contact with at the exterior, creating concavities of many shapes and forms.

The control booths at the North Access are the meeting point for both tracks and where the real *Caminito del Rey* trail begins. So far the walk will have taken approximately one hour.



River forest under the so called Gothic Arch

65

The beginning of *Caminito del Rey*. The first canyon: *Gaitanejo*.

Before beginning the walk, the management staff of *Caminito del Rey* will check your tickets and footwear (it is not allowed to walk the tracks and boardwalks in urban footwear or sandals. You must always wear walking boots or sports footwear). You should never start the walk without plenty of water or wearing suitable clothes appropriate to the weather conditions. It is important to understand that the canyons are extreme places with a very special microclimate, where any atmospheric agent will increase its incidence (wind, rain, cold or heat), even offering alternating cold and hot waves throughout the walk. You are recommended to carry all your belongings in a rucksack on your back.

You will be provided with a helmet and a hygienic hat to protect your hair. You will also be provided with the rules: You are in a Natural Site and must adapt your behaviour to the preservation rules. You must not leave the tracks, touch plants, move rocks of any size, smoke or litter.

You must behave correctly on the boardwalks; refrain



Control booths at the North Access: Visitors

from carrying walking aids, tripods or umbrellas. You are also required to keep your helmet on at all times.

The walk begins at a building made of limestone, housing the electrical transformers and a cable distribution section. A few meters ahead the visitor will see the former Gaitanejo dam and power station, which was designed by Benjumea and the object of admiration of King Alfonso XIII during his visit. In the centre, where the former turbine was placed, Benjumea installed a window to allow viewing of the waterfall falling into the river from inside.

These two buildings remind us that, apart from being in a privileged natural space, we are also witnessing an important example of hydropower that uses the level drops between water courses to produce energy: a great factory which the visitor will be visiting for the next three and a half kilometres. This is perhaps one of the most beautiful industries in the world.

From the moment the visitor leaves the dam behind, the attention is focused on the mountains closing up around them, converging into the narrowest dent at the very end of this trail that precedes the start of the actual *Caminito del Rey* trail.



The Gaitanejo dam on the way to the first canyon





This area used to have a primeval dam, of which only the remains at the beginning of the first canyon are left. Its name was *Presa de las Cambutas* and it succumbed to industrial development in the 70s, being blown up when the canal was not operating any longer and replaced by a pens-

tock running parallel but underground inside the wall along the visitor's trail. This is the perfect moment for a last glance at the former great water inflow pit of the canal, which is today totally abandoned and at the two level plates which remind us of the incredibly high levels the water reached, once in 1941 and another time, much higher, in 1949. During this year of "cold drops" the Desfiladero de los Gaitanes gorge had a water flow of



The Gaitanejo dam, 1921 (top) Storm at *Las Cambutas* (bottom)



2,870 m3 per second, which is more than twice the average river flow of the Ebro river at its Zaragoza section. Let us not forget that the Guadalhorce and Guadalteba reservoirs had not yet been built, and that storm rises took place without any sort of limitations or control. The Spanish Geological and Mining Institute has recognised several historical rises in Desfiladero de los Gaitanes, all of which reached more than two thousand cubic meters. per second. The most significant rises were registered in 1303, 1305, 1441 (nearly three thousand m3), 1633, 1906, 1941, 1949, 1968, 1979 and 1989, but there were many more. An interesting fact about the rivers as they flow through the gorge is their average flow, which is the volume of water that they carried for a year before the reservoirs were built. which was 4.85 m3. There is no doubt that the name El Chorro (The Jet) given by our ancestors was very suitable. What we see today is just a memory of what these canyons were like before the in-

dustrial times. The access to *Caminito del Rey* is signalled by two red limestone plates. The upper plate has been honouring the memory of Engineer Rafael Benjumea, the author of the works, 1921, whereas the plate below was fitted in 2015 in memory of the reopening of the boardwalks by the Malaga County Council.

The first canyon is the narrowest of all. At some points the visitor will only be five meters away from the wall across. Let us not forget

that the river here is the border between the villages of Antequera (the walls on which the train runs) and Ardales (the walls where *Caminito del Rey* was built) along the entire trail through the canyons.



Stone plates at the access to Caminito del Rey (top)

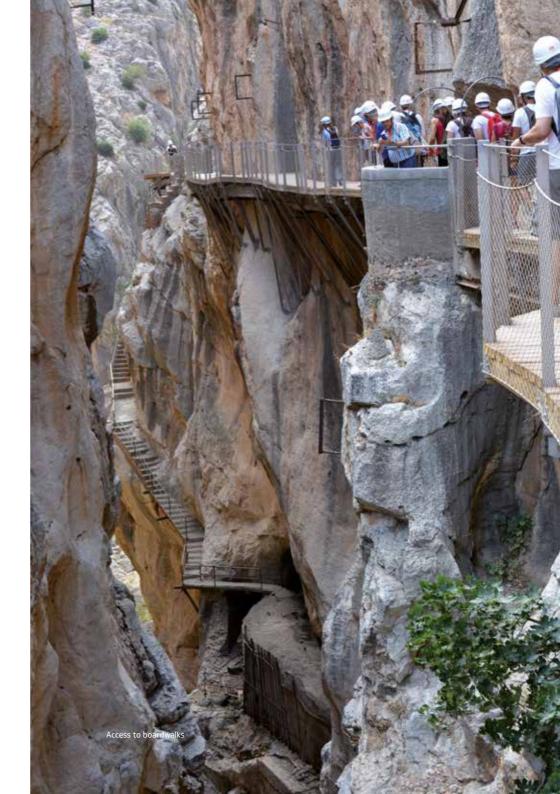
Los Balconcillos-Caminito del Rey (little balconies in the King's path) in 1921 (bottom)

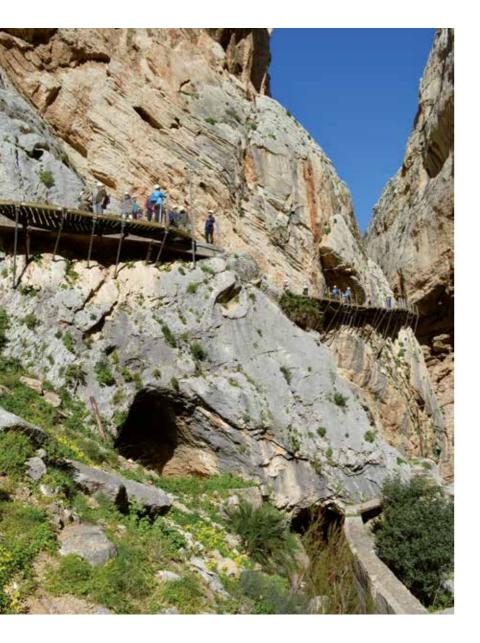


When walking this section it is advisable to look down to the lower part of the gorges, very narrow and twisty, and note the vertical marks left by erosion in the shape of giant's kettles, many of which hung as fossil remainders of the action of the river during the last five million years. During the springtime and the summer it is very common to see birds nesting and flying in this narrow canyon. A small stretch of the original Caminito del Rey still preserves the iron struts that protruded above the heads of visitors to become embedded into the wall, an item of decora-

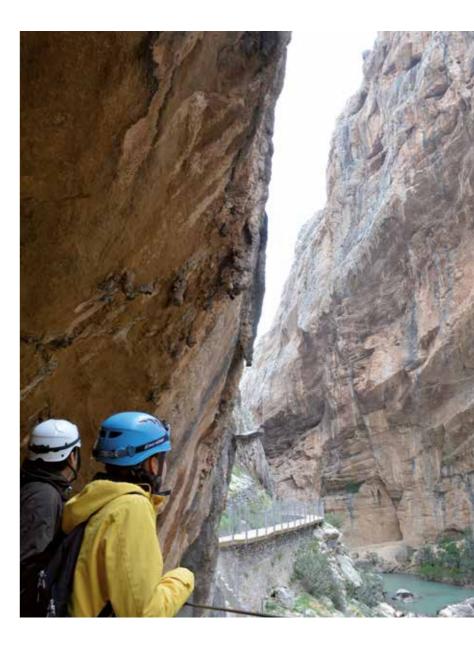


Remains of the first boardwalk (top) The giant's kettles phenomenon in the first canyon (bottom)





Boardwalks at Gaitanejo, Prehistorical cave and canal

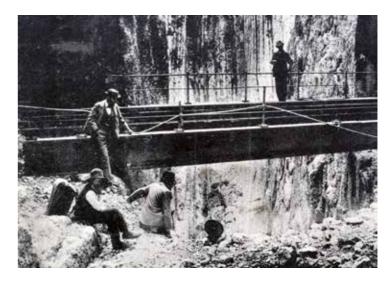


Exit of the canyon. A glance back



tion and support that was not present in any other part of the trail. The first stretch of boardwalks opens up over a small lake known as *El Soto*. The visitor can see it more closely by walking down the "chocolate bar staircase" (named after its shape) and taking the time to stop and watch this ecological area with strong links to Prehistorical archaeology. In a small orifice situated above the former canal, not in use today, a batch of seven thousand year-old Neolithic materials was found, studied and published in the 80s, which revealed how a group of mountain goat huntsmen and salmon fishermen (a salmon spinal bone has been documented as being used as a needle) used this canyon to obtain meat and fish and to complement their cereal and pulse diet. Whereas the goats still come here to drink in the afternoons, the salmon stopped coming upstream when the river began its industrial operations.

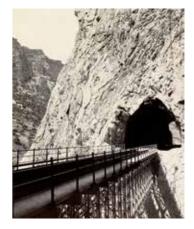
From *El Soto* a section running parallel to the former canal –where the visitor is allowed to go down a few metres to what once was one of its many underground routes- brings the visitor to a boardwalk where a glance back is worth taking, as it will offer a perception of how enormous the wall of the *Tajo Ballesteros* gorge actually is, together with the hanging caves hosting the nests of vultures and other birds of



prey. At the end of this first canyon the most curious of visitors may like to stop and contemplate the remains of the first metal structure under the boardwalks that was used in the works of the canal. This original structure was only a temporary assembly of iron prongs, planks of wood and ropes which were replaced by *Caminito del Rey* after the first two years,

with a much higher platform made of iron, brickwork and cement.

At this point between the first and the second canyon, the visitor can for the first time see the railway track which allowed Malaga to emerge out of its surrounding mountainous chain in August 1865. The project had been one of the city's ambitions since the mid-19th Century, but the technical



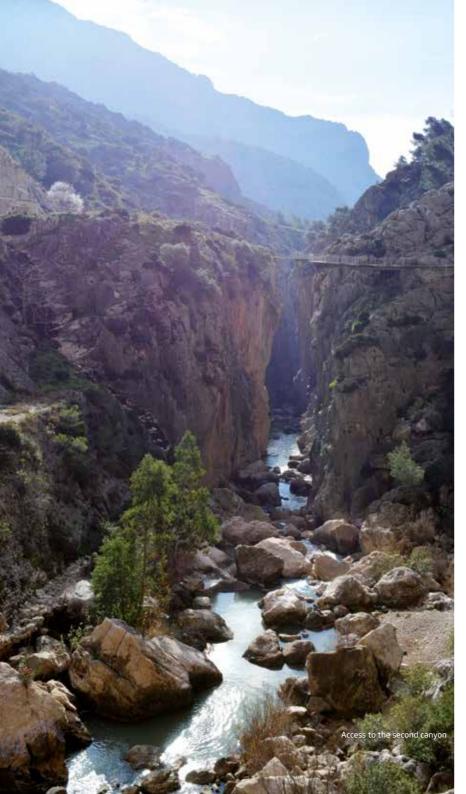


difficulties that bridging the level gaps between the sea and the mountainous arch posed lead to the proposal of a potential route through Ardales and another one through the *Desfiladero de los Gaitanes* gorge.

The paradox is that, technically speaking, it was easier to build ten tunnels for the railway track to go through the canyons rather than building a single tunnel through the mountain range (as it is the case of the new route for the Fast Speed Train with a 7.3 km tunnel). The numerous tunnels and metal viaducts hanging at the section of the Gobantes-El Chorro Station allowed the synchronised action of various teams of workers to work building metal structures in the aerial sections (all viaducts were made of iron initially) and drilling the underground sections with dynamite, until they had used up all the stocks accumulated in Spain. The Malaga-Cordoba section was completed in only five years, an achievement that would be unimaginable today.



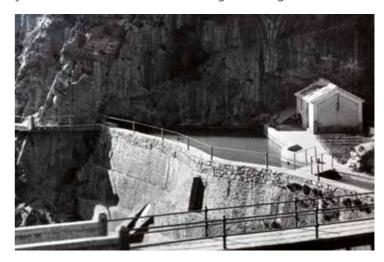




The second canyon: Tajo de la Paloma gorge, Cueva del Toro cave, Puente del Rey (King's Bridge)

The second canyon of *Desfiladero de los Gaitanes* is the only one being created by the action of the river flow and not by sea water erosion. It is also the river section with the highest steep gradient and therefore the river flows along small -yet fast- waterfalls, that can be felt from the boardwalks through the noise and the relaxing view of the water.

Known as the *Tajo de la Paloma* gorge, this section comes with outstanding aesthetic qualities and includes a Neolithic site known as *Cueva del Toro* (the bull's cave) which is situated a few metres above *Caminito del Rey* and which, apart from being a shelter for the first inhabitants, was also used as a forge by the blacksmiths during the construction works. At the middle point of the gorge the visitor will find two well-differentiated structures; the most attractive one is the remains of a small bridge that originally joined together the railway track and the boardwalk, being used as an offloading facility for materials since 1903. Alfonso XIII's royal visit in 1921 ended at this bridge, which gave it the most



The King's Bridge. Desilting gate and house of Frasquito Lucero, the guard

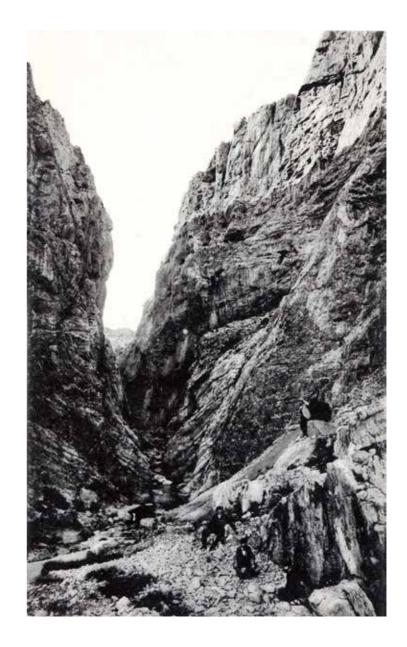


commonly-used denomination of *Puente del Rey* (the King's Bridge) over former denominations such as *Tajo de la Paloma* or *Cueva del Toro* bridge.

At present, the bridge is out of order and its use is forbidden due to its high degree of deterioration.

The second structure is a desilting gate, which was home to the worker in charge of maintaining the canal. This installation was of crucial importance because the canal received sediments at the shallow sections due to rain and stones that fell or rolled into it. The widened canal structure was closed with gates which allowed the cleaning of all this debris which was then dumped through a direct outlet into the canyon. The works on the exterior were carried out by people having to adopt vertiginous positions, standing over the precipice and using poles. However, not one accident has been registered, despite the lack of safety systems.

The last section of the second canyon presents large ravines where water becomes tamed and enters an open section where the comfort of stepping onto firm ground is regained, the noise of the rapids recedes and the river bank vegetation reappears.



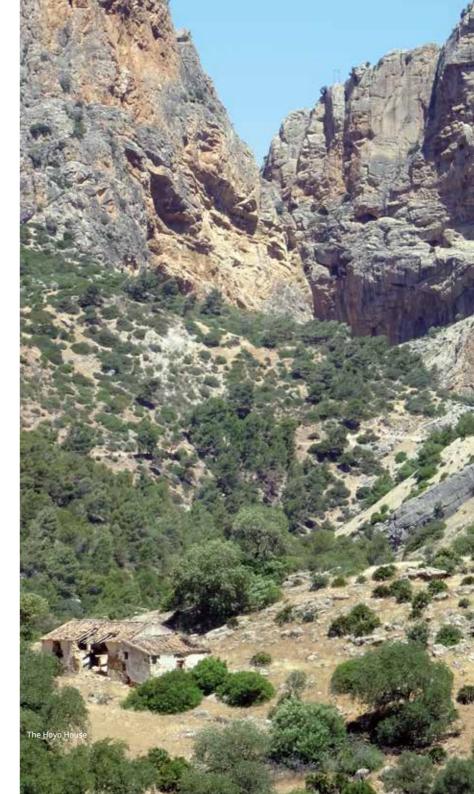
Discovering the gorge from the train. End of the 19th Century

The Hoyo Valley: the Sapito Pool, the carob threes and the Hoyo House

The central area of Desfiladero de los Gaitanes is occupied by a circle of mountains that has created an enclosed valley featuring –at the side close to the village of Ardales, which the visitor walks- the great walls of the Tajos de Almorchon gorge. These are very interesting from a geological point of view, as the visitor can see the Jurassic limestone in the middle section and the sandstone and Miocene conglomerates at the higher section. On top of this layer, there is a Scots pine forest of high ecological value. On the other side (Antequera) – the section where the trains run– there are three large rocky formations: the one situated towards the North (as the visitor looks back) is the great Tajos de Ba*llesteros* gorge, which is covered in white speckles where the nests and resting sites of the griffon vultures are situated. Towards the centre, there is another –yet lower- area of vertical walls that emerge behind the two large quarries that were operated by the former railways, i.e. Tajo de los Estudiantes



The train running through the Hoyo Valley



(vestiges of schematic cave art have been preserved in this area).

Eventually, at the highest point of the mountain range Pico de la Huma, a 1.191-metre peak stands out representing one of the most remarkable differences with the landscape, as from the very top of its summit to the river there is a fall of exactly one kilometre. The enormous path that goes down to the river course from Huma; known as *Cañada del Lobo* (the wolf's creek) was the last site of this land where a female wolf was caught in 1941. Perhaps, this was the last vestige of this species which was not uncommon in these mountains.

The path amongst the afforestation pines will lead the visitor to a derelict section of the canal with a water jet that has been tamed artificially into a round pool built in 2015 in order to facilitate the laying of eggs of the Iberian painted frog, a rare species resident in this area of the valley. This is a perfect place to take a break, a drink of water and have a



The pool of the Iberian painted frog and the carob tree



snack, as the visitor will still have the other half to complete.

During the break and from this point onwards, the visitor can see several specimens of large carob trees. They are part of the mediaeval vegetation surrounding the Berbers using the Gorge to herd their cattle. Following this trail the visitor will see the remains of the Hoyo House, which is situated in the centre-south of Desfiladero de los Gaitanes, a few metres from the river course of the Guadalhorce river and only a few hundred metres from the last canyon. In the 80s the presence of mediaeval and Castilian ceramics was registered by archaeologists, which indicates the existence of a former construction at least dating from the 13th Century. It is likely to have been a small farmstead of shepherds and

The house was built before the construction works for Caminito del Rey began, as at the beginning of the 20th Century it was residence to Mr Miguel Alba and Mrs Dolores Reina Rodríguez, and before them, at some unspecified time, it belonged to the grandparents and parents of Miguel. It is

a small farm.

known that Miguel Alba was stabbed to death in 1910 when he attempted to stop a fight between first cousins. His widow, Dolores Reina, took charge of the farm and their children (some say there were nine, whilst others say eleven). Their youngest daughter, Purificación Alba Reina, was only twenty days old when the sad incident occurred.

Dolores, with the help of her older children, established a subsistence economy based on the farming of a few cows, hens, a herd of pigs, a few goats and sheep, oranges and carobs. She began to make cheese and sell the production in order to provide for her home. They had a large pond which they filled with the surplus water from the canal running through the Gorge. At the end of the 70s, the house was abandoned, as all the children got married and abandoned *Hoyo*. The latest survivor was Purificación, who married José Lima Barrionuevo. Currently, some of her descendants still live in *El Chorro*-Alora Station and Ardales. Since the 70s the house has been shelter to the first mountaineers climbing the walls of the Gorge. Currently, the house and the farm are totally abandoned and derelict.



The Hoyo House

Leaving the Hoyo house and its history behind, the visitor will take the last stretch of the trail and look onto the two large limestone moles that close around the last canyon. These are two large peaks, the one closest to Ardales is known as Cerro del Castillón de la Ermita or Cerro Cristo. The one on the left, in the village of Antequera, marked by large vertical cavities, is Cerro de San Cristóbal or Nichos de San Cristóbal, which climbers renamed as Cerro de los Tres Techos (the three-roof ridge) in memory of the sportive and technical climbing challenge it posed in the seventies and beginning of the eighties. As the visitor walks on, there is an ascending track which is one of the few exits out from Desfiladero de los Gaitanes on foot. This is the path joining El Hoyo and Ermita de Villaverde (chapel) through Collado del Castillón. This is a hard stretch to walk but the views are spectacular. The visitor will now be faced with the staircase taking them to the last section of boardwalks. Taking a few minutes to look back and contemplate the track left behind is highly recommended here.



Section of the canal the visitor uses as an access path to reach the third canyon



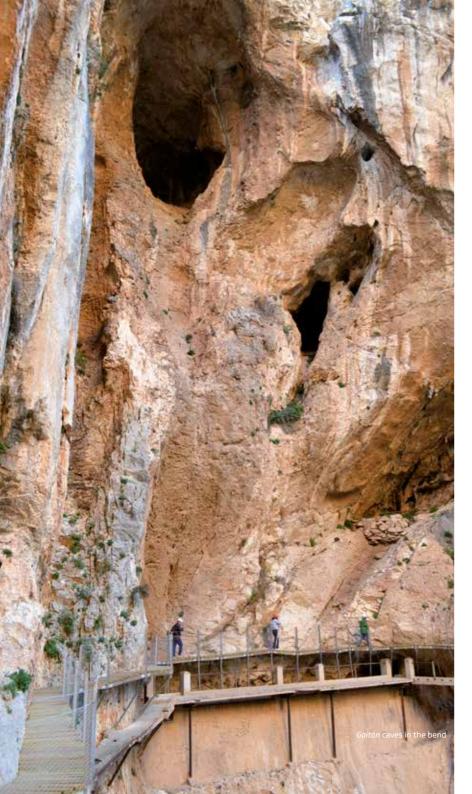
The Third Canyon: *Gran Gaitán*, the ancient juniper tree, the glass balcony, the fossil beach, the faults

The last large stretch of boardwalks begins at the point where the canal and *Caminito del Rey* come apart. From here the canal runs practically underground up to the aqueduct bridge (which is currently used as an alternative path to the hanging boardwalk on the days when, due to the strong winds, there are small rockfalls in this canyon). On the other hand, the boardwalks run around the most vertiginous section of the two great faults before the aqueduct bridge can be reached, which is not far. This section, designed by Benjumea with a clear intention to impress, is certainly the most impacting and vertiginous one, with the beauty of some sections of the landscape competing against the magnitude of the geological formations. This section can easily overwhelm the visitor, as it surpasses to a great extent any visual references of human scales.

At this point *Caminito del Rey* puts the visitor over one hundred metres above the river level, with nearly six hundred metres of a track ahead that winds around walls with



Coming out of the bend



a great overhang and which are therefore more in the air than all the previous ones. The visitor will experience the feeling of going out to the river and coming back towards the mountain again several times. This is caused by the transverse faults that emerged by the action of erosion. This last canyon is the best area to contemplate the verticality of the strata, with some sections close to the railway tracks even revealing the limestone strata from the base of the river to the summits, situated at more than two hundred and fifty metres above us. It is also the best place to watch the extreme rock vegetation with some extraordinary ancient specimens being present, such as the Phoenician Juniper situated at a little less than one hundred metres from the start of the boardwalk. This tree is literally born in the rocks and has survived for over five hundred years under extreme conditions, being a representative sample of all the vegetation that is prisoner to the canyons, where







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From the balcony to the fault (top) Ammonite fossil mark (bottom)

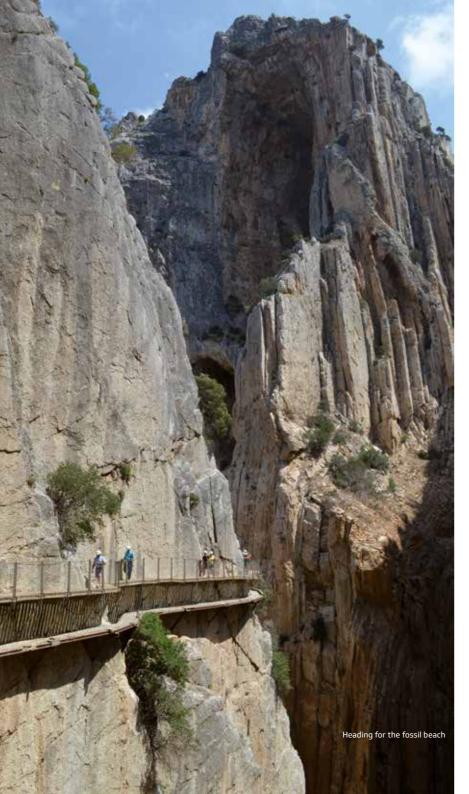
there has never been a fire, and where the human hand has never been able to change its conditions. This truly vertical forest can be seen today in its perfect environment thanks to the reopening of the boardwalks, which after forty years of neglect now enable everyone to enjoy once again these peculiarities that had remained hidden within this enormous geological phenomenon.

The first bend is partially covered by a dome housing the end section of several large caves. These hard-to-explore caves were studied and mapped in the 80s, although they were already mentioned in the 19th Century when they could be viewed from the train. Here the visitor is offered right in front of him the most beautiful section of the Cordoba-Malaga railway track, a section crossing –today on a masonry bridge and two tunnels and formerly on a steel bridge –the great fault that ends on the Antequera side in the large *Nichos de San Cristóbal*, i.e. the climbers' three-roof ridges, which vest this space with overwhelming magnitude. The walls under the visitor are a red clay colour which is the result of the terra rossa coming from the erosion of the Gaitán cave interiors at its underground section.

Walking on the new boardwalks allows the visitor to view, not without a certain level of agitation, the remains of the former *Caminito del Rey*. It is a much-deteriorated track that can be considered nearly a revered archaeological remain which makes the visitor form part of history spanning more than one hundred years.

Going back out to the canyon, the trail leads the visitor to a glass balcony, a structure that is not an obligatory passage on the track, but one that forces the visitor to face his own fears, as it comes out of the steel and wood boardwalk onto a glass platform that can only be used by four people at a time, and provides an excellent photographic setting on account of its fantastic backdrop.

There will be two final stretches before arriving at the landing of the aqueduct bridge. The first stretch will take the

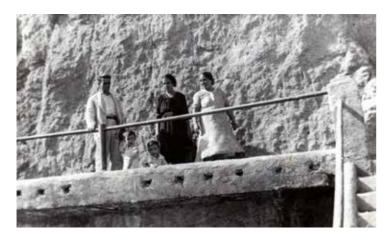


visitor to the Smaller Fault with its totally vertical walls on which Caminito del Rey leans, allowing the viewing of the bottom of the river without difficulty and the yet-unachievable river crossing. A piece of methacrylate screwed on to the wall protects the fossil mark of an ammonite (the name derives from Greek and refers to the antlers of mutton. In Egypt, God Ammon was represented in the shape of mutton's head). These used to be marine cephalopod molluscs that were extinct. Many current researchers see in nautili their live descendants.

These fossils were deposited in the sandy sea bed and turned into vertical rocky strata when they were pushed up. "Ammonites" are without a doubt the most remarkable and indelible proof of the geological origin of these mountains being the sea. At this stretch of *Desfiladero de los Gaitanes* there are many specimens, although the majority of them are not visible to the visitor.

This wall, a gigantic remainder of a Jurassic





beach in itself, still preserves the perfectly crystallised waves of a sandy bed along hundreds of square metres (these fossil sedimentary structures are known as flute casts), which probably make it one of the world's largest fossils.

On leaving the fossil beach behind, the visitor enters the apex of the Smaller Fault where El Puentencillo (the little bridge) powerfully strikes the visitor as it is the most dizzying proof of what the boardwalk designed by Rafael Benjumea used to be. The narrowness and depth of this angle deserves a minute to take in a deep breath, look down to the river bed and raise the gaze slowly along the wall opposite up to the summit. The sensory impact is extremely high. This is probably the most emblematic space of *Desfiladero de los* Gaitanes, with a great number of visual elements that attract the visitor's sight towards the constricted railway track between two very close tunnels; towards the wavy lines of the gigantic strata, which have literally been made to stand by the force of nature; or towards the course of a river that runs downstream between the gigantic blocks that have fallen from the summits. As the visitor continues, on a parallel line and from the opposite side, he can see the fossil beach and the wavy flutes. At this point the visitor must look back to the canyon and face crossing the suspension bridge.

The concrete landing where the little quard house used to be is a good place to take another break and have a drink of water, while contemplating the old aqueduct bridge built in only a few months by Engineer José Eugenio Ribera Dutaste, using a very risky technique which employed straining cables to support an entablature that became the basis of a fully wooden formwork that was endlessly reinforced and filled with concrete. The works were accomplished by men hanging 105 metres above the river and the two engineers, Benjumea and Ribera, managing the works without a blink. The entire construction, which since 1904 has been used to cross the waters from one side to the other, cost thirty thousand pesetas (approximately € 180 at present). The agueduct bridge continues to have the same purpose at present, but the water is currently piped.

Besides this historical piece of engineering dating





from the beginning of the 20th Century, a steel suspension bridge has been put in place which allows the visitor to cross the precipice for a length of over thirty metres. The suspension bridge is cable-stayed to prevent lateral movement (it does not swing laterally) although it swings vertically very slightly, thus providing an unforgettable feel of lightness.

This bridge, like all the boardwalks making the *Caminito del Rey*, is provided with the necessary safety measures, turning the visit into an experience filled with excitement but without the risk of accidents. Its designer and author, Architect Luis Machuca Santa Cruz, has received several awards and mentions for this new boardwalk which has allowed the recovery of one of the most remarkable hydrogeological and ecological areas of Spain.

The last flight of stairs and boardwalks will lead the visitor out of *Desfiladero de los Gaitanes* with views of the *Mesas de Villaverde* mountains if we look right, where the archaeological and architectural remains of Bobastro –the city of the rebel Christians who faced up to the Cordoba Emirsare situated. This was the main Mozarabic site in the south of the Iberian Peninsula.



Looking down and to the left the visitor will see the new Chorro power station, which replaced the original El Chorro hydropower plant designed by Benjumea.

The tour of the boardwalks will end on crossing above the railway track, now within the Alora district. This is where the visitor will begin the path leading to the exit. It runs for 2.1 km and ends at the *El Chorro-Caminito del Rey* Station. Except for the first stretch, the remainder of the trail is descending, which will help the visitor to easily complete the long walk.

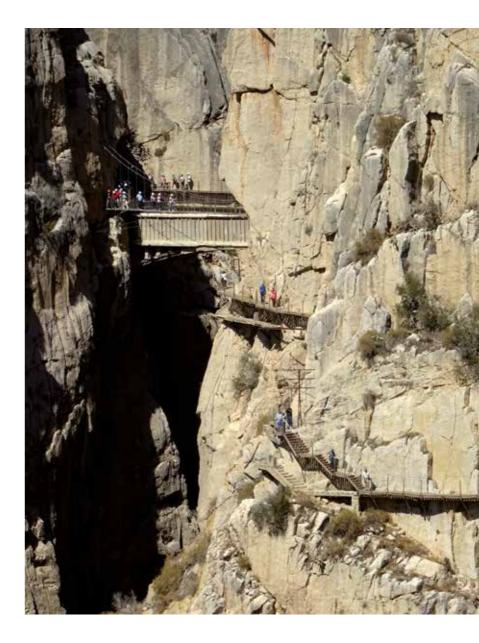
Visitors will pass by the piping going from the aqueduct bridge and down to the hydropower plant, where they will begin a steep slope leaving the *Majada de la Cebolleta* hill on their left. At its summit there is a cross and nearby a manhole or deposit which is part of the industrial archaeology of this final stretch, which preserves fragments of the pipes belonging to the power station, which are now unused. Amongst the trees there are interesting constructions such as Puente de la Josefona (Josefona's bridge), i.e. a magnificent piece of engineering that was originally a metallic viaduct and is still used by the railway between Malaga and Cordoba.



A few steps ahead, where the downward steep slopes end, the visitor will find the hidden house of Benjumea, a construction in the Spanish northern style that is the property of the hydropower company, to which no access is allowed.

A trail that runs parallel to *La Encantada* equalizing basin brings the visitor to *Capilla Escuela de El Chorro* (school-chapel), which was built by Benjumea for the use of the children of his workers. It is a beautiful construction with a colonial external appearance, simple but, as with so many of the works by Benjumea, well-proportioned and provided with very stylish finishes. The "chocolate bar staircase" reminds the visitor of the descent to the Soto lake, in the heart of *Caminito del Rey*. It currently has occasional use as a social and religious building.

The return of our safety helmet means that the end of our experience of *Caminito del Rey* is near. However, the visitor will need to complete the visit at *El Chorro* Station if he is to close a natural and historical circle that began beside the *Presa del Pantano de El Chorro* dam in Ardales, where the river water is stored, and ends at the *El Chorro* Station in Alo-



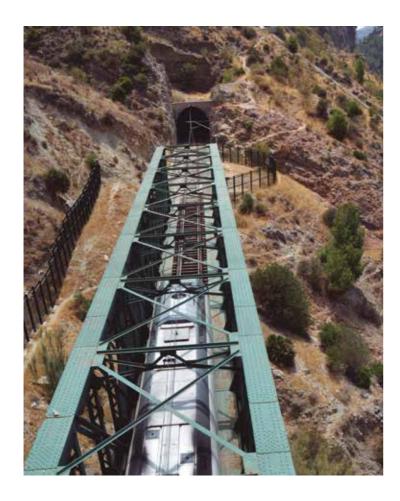
Crossing the bridge

Final stretch of boardwalks



ra, where the wind power has turned these eight kilometres of trails and slopes into electricity.

Our tour of the canyons, following the water course, is proof of the human effort put into transforming nature into energy.



The boardwalks at the exit run above the railway track El Chorro. Andalusian Climbing Club (picture José Enrique Sánchez Pérez- 1973)



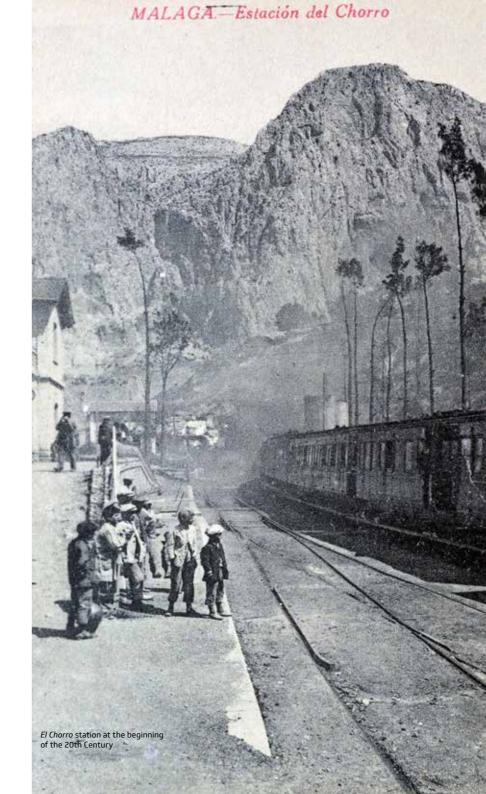
The El Chorro station and La Encantada equalizing basin

The railway was one of the great inventions of the 19th Century and meant the first industrial foray in these lands. The Malaga-Cordoba line was a boast of engineering and in *Desfiladero de los Gaitanes*, between 1860 and 1865 the Spanish engineers were able to prove they were capable of overcoming issues of complex terrain. They were required to cross the seven kilometre width of the Baetic mountain range and design the railway tracks as close to the vertical walls as possible, choosing to accomplish short tunnels and vertiginous viaducts in order to avoid drilling a single tunnel, which was a very complex task at the time.

The two stations at seldom sides of the canyons were the *Gobantes* station (in the north) in the district of Peñarrubia (currently, Campillos) and the *El Chorro* station (in the south) in Alora. The *El Chorro* station is the only one still active, with middle-distance trains (regional trains) and freight trains in service. It preserves its original structure on top of a large platform, with a duopitch roof, the classical clock and the handrails that allow the visitor to look out onto the tracks and watch, prior to and further from the station, the large water tanks that used to be employed by the steam trains in their boilers. These original elements, together with the entrance to the tunnels, provide it with the charming appearance of a station that has remained stuck in the past.

The original *Gobantes* station has not been preserved. When the *Guadalhorce* reservoir was built in the 70s, it was dismantled and partially destroyed by the salty waters of this large reservoir, something that also happened to the village to which it belonged, i.e. Peñarrubia. This village disappeared with the industrial development of the area.

When present day society attempts to ascertain the contribution that districts made to this general development, one must really remember that this enormous complex of reservoirs, hydropower plants, channelling, transformer sta-



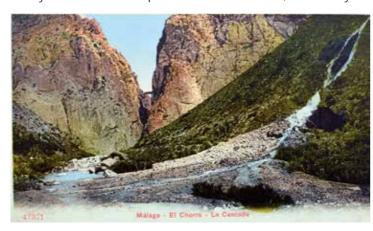
tions, etc. carried a social and territorial cost too, with the occupation of many square kilometres of fertile lands which would almost certainly have had families associated with them.

We must remember that the *Guadalhorce* reservoirs and all their great power stations are situated within the districts of Alora, Antequera, Ardales, Campillos (formerly Peñarrubia) and Teba. It was these districts and their contributions, who actually transformed the farmland into an industrial area, whilst the commitment of the current energy industry in respect of the preservation and development of this land is very scarce or even non-existent at present.

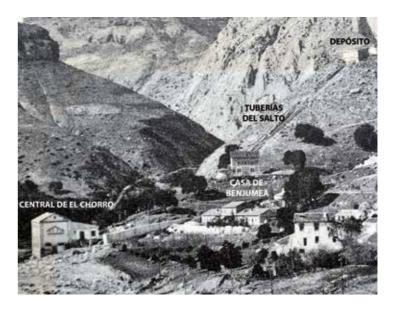
When somebody opens a tab, switches on an electrical appliance or the lights of his home, they must not forget that the natural water circuit has paid a cost that does not appear on the bill. It is the cost to the villages where these basic issues of daily life are raised for its inhabitants.

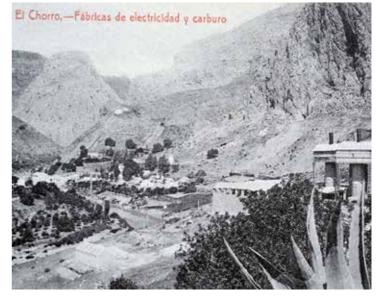
And as the cherry on the cake: the view of *La Encantada* Equalizing Basin that the visitor has in front of him.

Electrical power is subject to the laws of supply and demand. Many times throughout the day demand may be high and the use may increase exponentially, making electricity become more expensive and vice versa, there may be



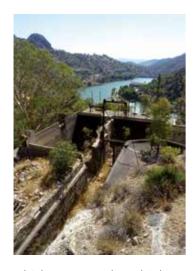
Front walls and waterfalls of the tank





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El Chorro – Electricity and carbide factories Outline of Salto del Chorro (top) Electricity, cement and carbides factory in El Chorro (bottom)

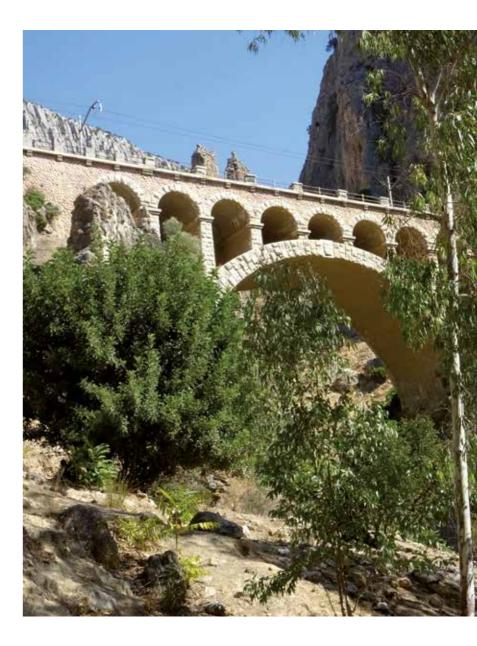


no demand and electricity becomes much cheaper.

The reservoir the visitor can see from the *El Chorro* station is not like the three large reservoirs that were built upstream in the Gorge. These three have a water storage purpose to prevent the issues brought about by cyclical droughts and rivers drying up in the summer. They are regulated on a daily basis from an office situated at the meeting point of the three valleys

which ensures that drinking water and irrigation water are fully and efficiently managed. The outflow always generates electrical power at the power stations situated under the large reservoirs.

However, the purpose of the fourth reservoir is totally different from the others. This is mainly due to the fact that this is not a single fourth reservoir, but two fourth reservoirs, as two large deposits were built: one above, situated at the highest part of the Mesas de Villaverde mountains, where the preserved Mozarabic city of Bobastro lays, and another one, below us, where the impeller pumps and turbine-generators are situated. Both deposits are obviously connected via a large pipe which overcomes a four hundred-metre fall. This technological innovation allows the electrical industry to use the cheap energy that is not sold to pump up the water to the upper deposit. When energy becomes more expensive again, they run down the stored water to the lower turbines and produce more profitable energy. That is to say, a litre of water that arrives in the complex of the *Guadalhorce* reservoirs, having fallen as rain on the above mentioned villages, can be handled by the turbines up to three times; once when it



Deposit from which the water fell into the *El Chorro* Power station

Josefona bridge. Used by the railway



comes out of the reservoir, again when it leaves *Desfiladero de los Gaitanes*, and then when it is pumped up to *La Encantada* Equalizing Basin, it will produce energy again before it leaves the area to reach Malaga.

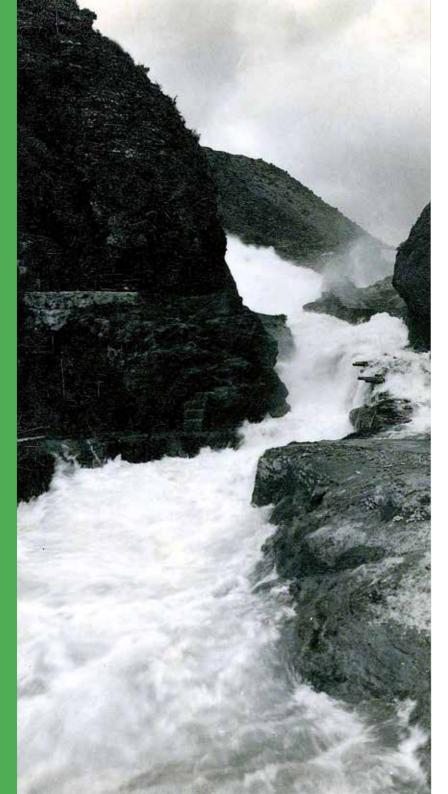
This is the end of the tour through *Desfiladero de los Gaitanes* via *Caminito del Rey* and all we have left to do is return to our vehicles. If the visitor left his vehicle parked at the area of the *Presa del Conde de Guadalhorce* dam in Ardales or at the Visitor Centre in *Puerto de las Atalayas*, he will need return to it using the shuttle bus back to the starting point. In total, between the beginning of the tour at the path leading to the North Access and the return to their vehicle, the visitor should have spent at least three and a half intense hours, which will remain in their travel memories for ever. The experience has finished and this guide can be used as a memory of a place with exceptional universal values which we are finally able to visit again.



Virgen de Villaverde Chapel and cave



La Encantada hydropower station and Bobastro



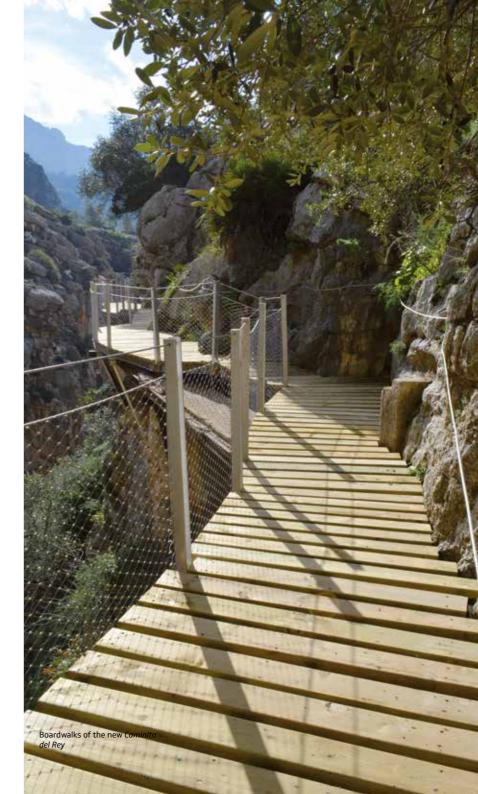
Bibliographical References

- ALARCÓN DE PORRAS, F. (2000): Historia de la Electricidad en Málaga. Editorial Sarriá. Málaga.
- •ALARCÓN DE PORRAS, F. (2006): Historias y curiosidades de la electricidad en Málaga. Academia Malagueña de las Artes y las Ciencias. Málaga.
- ALFARO GUTIÉRREZ, P. (1921): Crónica del viaje de S. M. el Rey D. Alfonso XIII a Málaga. Ayuntamiento de Málaga. Imprenta Ibérica. Málaga.
- BESTUÉ CARDIEL, I. y PÉREZ MARRERO, J. (2009): Ayer y hoy del Desfiladero de los Gaitanes y el Caminito del Rey. Plan de Dinamización Turística Entorno de los Embalses Guadalhorce-Guadalteba. Málaga.
- •BESTUÉ CARDIEL, I. y PÉREZ MARRERO, J. (2015): El Caminito del Rey. Un recorrido con Historia. Diputación de Málaga. Málaga.
- •BROTONS PAZOS, J. (1999): El Embalse del Chorro, un hito en la política hidráulica en el umbral del siglo XX. Ministerio del Medio Ambiente. Confederación Hidrográfica del Sur. Málaga.
- CANTALEJO DUARTE, P. (2007): Naturaleza y Seres Humanos en la Comarca del Guadalteba. Editorial La Serranía. Ronda.
- CANTALEJO DUARTE, P. y otros (2006): Pastores, leñadores y economía de subsistencia durante el Neolítico en el entorno de El Chorro. Ardales. Málaga. Patrimonio Guadalteba. Campillos.
 - CONSEJERÍA DE CULTURA. (2001): El Patrimonio In-

Great storm at the start of the canyons

dustrial en Andalucía. Jornadas Europeas de Patrimonio Histórico. Junta de Andalucía. Sevilla.

- CONSEJERÍA DE OBRAS PÚBLICAS Y TRANSPORTE. (1991): Potencialidades paisajísticas y recreativas de los embalses del Guadalhorce (Málaga). Junta de Andalucía. Sevilla.
- DUQUE GIMENO, A. (1986): Guía Natural de Andalucía. Instituto de Desarrollo Regional. N° 35. Universidad de Sevilla. Sevilla.
- GONZÁLEZ SUÁREZ, C. (2013): El Desfiladero de los Gaitanes. Ediciones del Genal. Málaga.
- GONZÁLEZ SUÁREZ, C. (2015): Un paseo con imágenes por la historia del Desfiladero de los Gaitanes. El Chorro. Ediciones del Genal. Málaga.
- LACOMBA AVELLÁN, J. A. (2007): La Málaga del siglo XX. Historia de Málaga. Prensa Malagueña, S. A. Málaga.
- LEÓN MILLÁN, R. y MUÑOZ ROJAS, J. A. (1993): Guadalhorce. Chorro de Luz. Fundación Sevillana de Electricidad. Sevilla.
- MARTÍN GAITE, C. (1977): El Conde de Guadalhorce, su época y su labor. Colegio de Ingenieros de Caminos, Canales y Puertos. Madrid.
- ROMERO GONZÁLEZ, M. y otros (2002): Comarca del Guadalteba. Los Embalses. Ardales. Aneax Ediciones. Málaga.
- •ROMERO GONZÁLEZ, M. y otros (2004): Los Gaitanes El Chorro. Guía de Turismo Natural. Aneax Ediciones. Málaga.



List of the wildlife mentioned in the guide

Birds:

- Bonelli's Eagle Aquila fasciata
- Booted Eagle Hieraaetus pennatus
- Golden Eagle Aquila chrysaetos
- Egyptian Vulture Neophron percnopterus
- Greylag Goose Anser anser
- Eurasian Jay *Garrulus glandarius*
- Common House Martin Delichon urbicum
- Griffon Vulture *Gyps fulvus*
- Great Tit Parus major
- Red-billed Chough *Pyrrhocorax pyrrhocorax* Cormorant *Phalacrocorax*
- Eurasian Coot Fulica atra
- Common Egret Ardea alba
- Rock Pigeon Columba livia
- Great Spotted Woodpecker Dendrocopos major
- Bearded Vulture Gypaetus barbatus EXTINĆT
- Common nightingale Luscinia megarhynchos
- Alpine Swift Tachymarptis melba

Mammals:

- Mountain Goat Capra pyrenaica
- Wild Boar Sus scrofa
- Common Bent-Wing Bat Miniopterus schreibersii
- Red Fox Vulpes vulpes

Amphibians:

- Perez's Froq Pelophylax perezi
- · Iberian Painted Frog Discoglossus galganoi
- Spiny Toad Bufo spinosus

Reptiles:

- · Viperine Water Snake Natrix maura
- Horseshoe Whip Snake Hermorrhois hippocrepis
- Andalusian Wall Lizard Podarcis vaucheri
- · Large Psammodromus Psammodromus algirus
- •Ocellated Lizard Timon lepidus

Fish:

• Andalusian Barbel - Luciobarbus sclateri



Practical Information: Recommendations and basic rules

For most people, the *Caminito del Rey* is not overly difficult provided they do not suffer from heart or respiratory problems, mobility issues, vertigo or agoraphobia. It is not recommended for people who are very sedentary or those who become tired easily, as the eight kilometres along trails and boardwalks will require an average physical effort (approximately three hours non-stop walking).

Provided that the walking tour is linear (it begins and ends in places that are far apart), visitors are required to return to their point of origin and for this purpose, a shuttle bus line service has been put in place to cover the distance between the *El Chorro* Station (Alora) and the *Presa del Conde de Guadalhorce* dam (Ardales) and vice versa.

Anyone accomplishing the visit between the north and south gates must always present an official ticket issued for the required date. You will be required to wear the safety helmet provided by the institution during the walk between both gates. You are also required to wear sport shoes or walking shoes and carry plenty of water. It is also sensible to bring a piece of fruit or a snack.

Desfiladero de los Gaitanes can occasionally be subject to extreme weather conditions, such as heat, cold, wind gusts, rockfall and/ or downpours. Such atmospheric circumstances may cause the partial or full closure of the area for safety reasons. Only in such circumstances will a visitor obtain a new date for his visit using the digital platform.

The following are important prohibitions: do not carry walking sticks or umbrellas, or selfie sticks. Do not use camera tripods. Do not collect plans of any kind, do not leave the signalled tracks, do not throw organic or inorganic rubbish, do not graffiti or damage any areas.

Children under the age of 8 are not authorised to visit *Caminito del Rey*. People over 75 must be very confident in themselves being sufficiently fit to manage the walk and the

effort required to complete the route. There are no sources of water or toilets along the way. We require visitors to take this into account, especially people over the age of 65.

Should you wish to buy tickets in advance, please use the official platform:

www.caminitodelrey.info.

Should you have any queries, please send us an email:

info@caminitodelrey.info.



In memory of Ignacio Mena and Francisco Berrocal, who left us when Caminito del Rey was reborn to everyone else.

ACKNOWLEDGEMENTS

To Carlos Vasserot, Luis Machuca, Saturnino Moreno and Jacinto Segura from the Malaga Regional Council, who did not hesitate to encourage the creation of this guide. To Francisco Campano and his entire team at UTE Caminito del Rey, who took care to provide me with every single thing I needed. To María del Mar Espejo and her team at Ardales- tur: Lidia Cabello, Cristóbal Leal, Cosme Padilla, Joaquín Sánchez, Pedro Cantalejo Espejo and Carolina Romero, who helped us create a conductive thread to combine the reading with the onsite explanations. To my colleagues of the Ardales Department of Heritage: Isabel Berrocal, Gerardo Anaya, Lidia Berrocal and Cristóbal Baeza, with whom I shared the day-to-day tasks making things easier for me. To Antonio Aranda, who shaped the design of this guide and to Manuel Becerra who transferred to me his love for vegetation. The love for this natural space was passed on to me by my grandparents and my parents, but no doubt it was nurtured by listening to many people who contributed their understanding of this place. Amongst all of them, I would like to mention Luis Morales and Juan José Durán.

