

GEOROUTE 5

THE HIDDEN
VALLEY

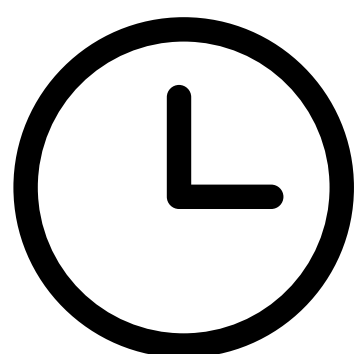
OLATZ

#GEOPARKEA

OLATZ GEOROUTE

PRACTICAL INFORMATION

PR Gi-47



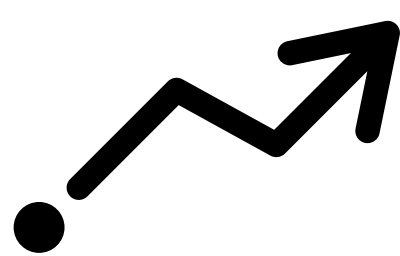
DURATION

2 h



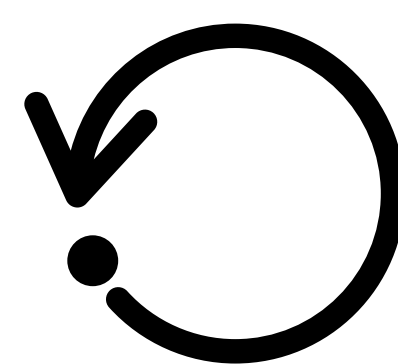
DISTANCE

6.5 km



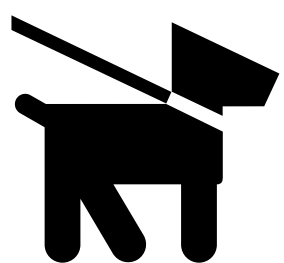
ELEVATION
DIFFERENCE

+290 m
-290 m



CIRCULAR

YES



geoparkea.eus



#GEOPARKEA



((112))

SOS DEIAK

OLATZ GEOROUTE

HOW TO GET THERE?

[View in Google Maps](#)

Starting point: The hermitage of San Isidro in the neighbourhood of Olatz.

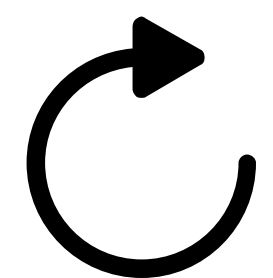
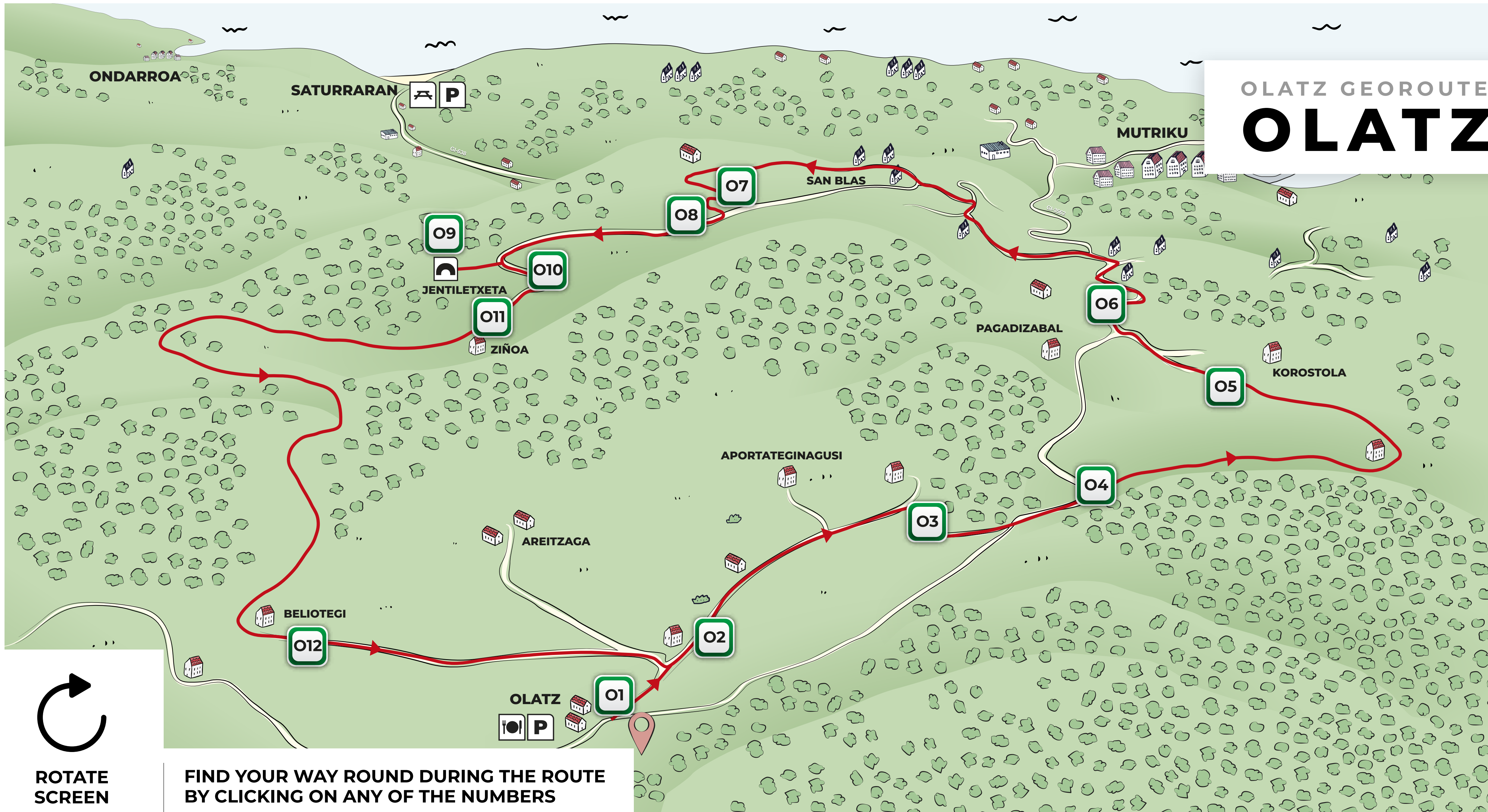
Nearest town: Mutriku.

Coordinates: $43^{\circ}17'17.0''\text{N}$ $2^{\circ}24'27.0''\text{W}$

Access: By car. From Mutriku, take the Gi-3562 road that will take you to the neighbourhood of Olatz.



OLATZ GEOROUTE
OLATZ



ROTATE
SCREEN

FIND YOUR WAY ROUND DURING THE ROUTE
BY CLICKING ON ANY OF THE NUMBERS



INTRODUCTION

The Olatz Valley is a great depression surrounded by pyramid-shaped mountains. This is due to the action of water on limestone. Enjoy a walk through this green landscape of holm oak, farmhouses and limestone.



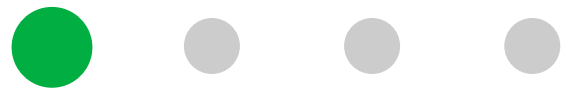
This georoute has 12 points of interest marked with plaques on the route itself. Locate them and read the interesting explanations.



OT1

A CLOSED VALLEY?





01

Look carefully around you. You are in a **depression** that has no exit to the sea. How could it have been formed? Here's a clue!
Water.



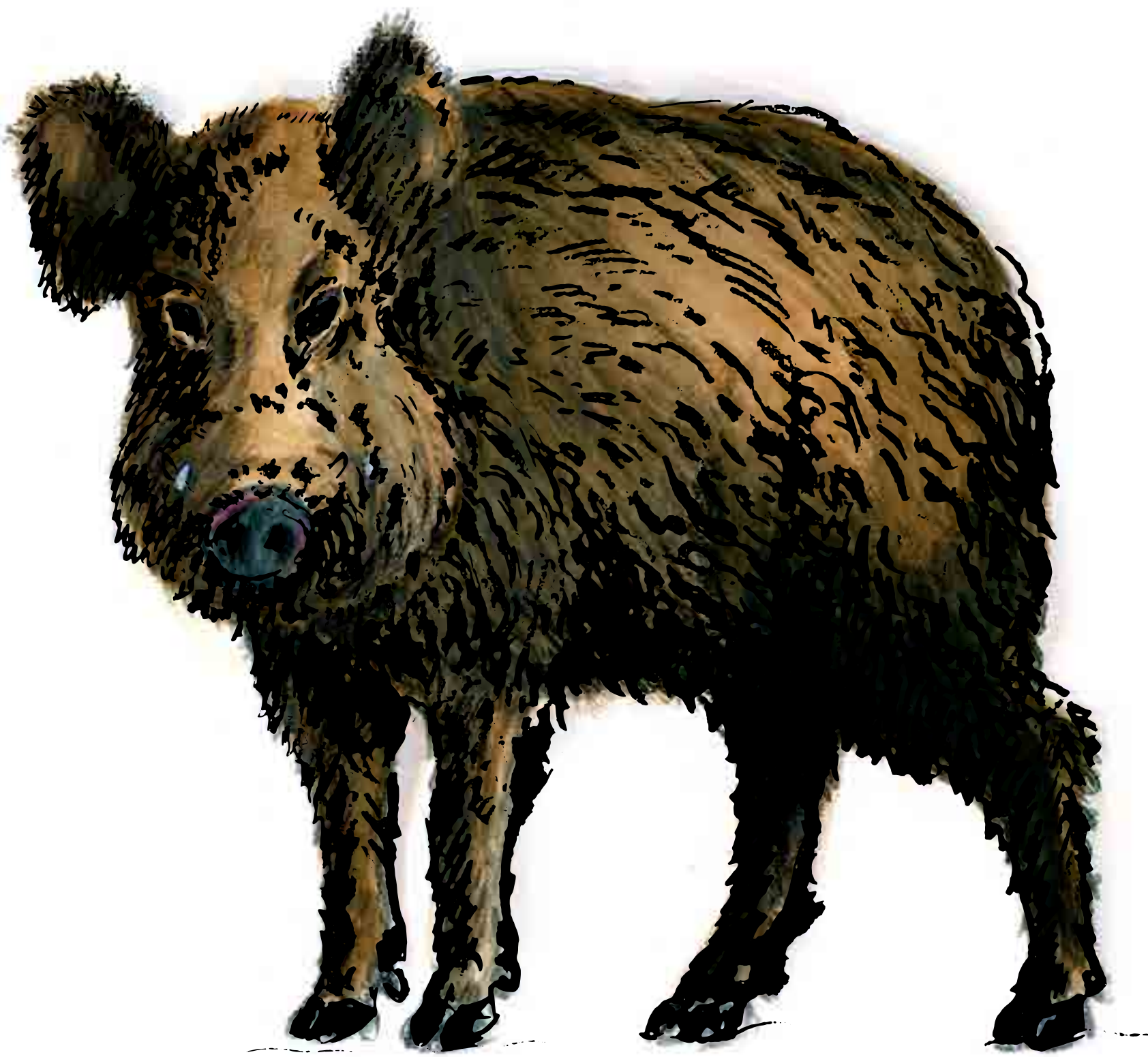
Cantabrian holm oak



The Arno Special Conservation Area was declared in 2013 because of the importance of its **Cantabrian holm oak**. This area belongs to the **Natura 2000 Network**, a European network for biodiversity conservation.



The holm oaks are typical of a **more Mediterranean climate**. In Gipuzkoa, they have established themselves on limestone slopes with very little soil and low water availability.



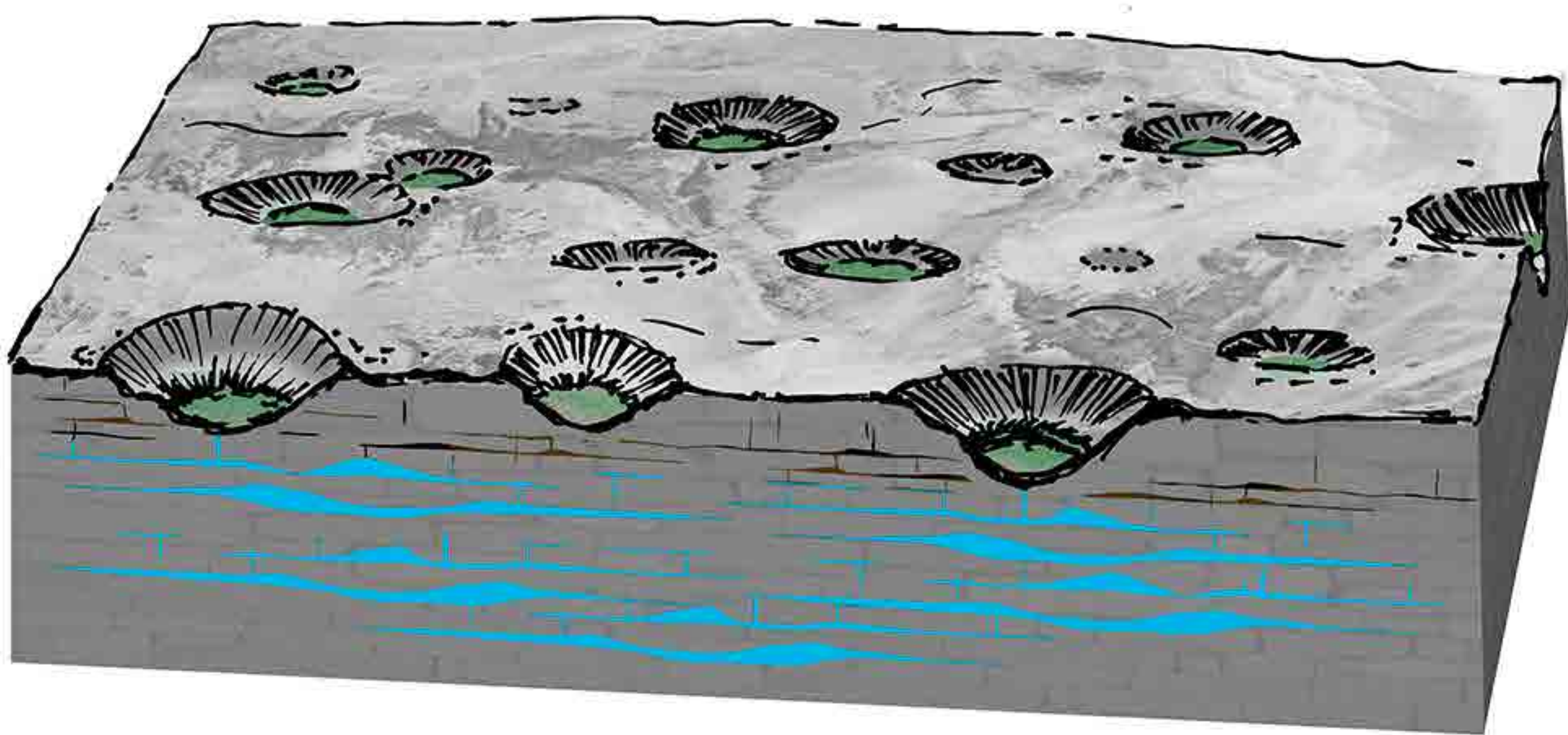
The **wild boar** is one of the animals best adapted to the density of the groves of holm oak. They are short, fast and have a hard, sandpaper-like skin.

Don't forget to look up at the sky: the **Egyptian vulture** is watching from above.



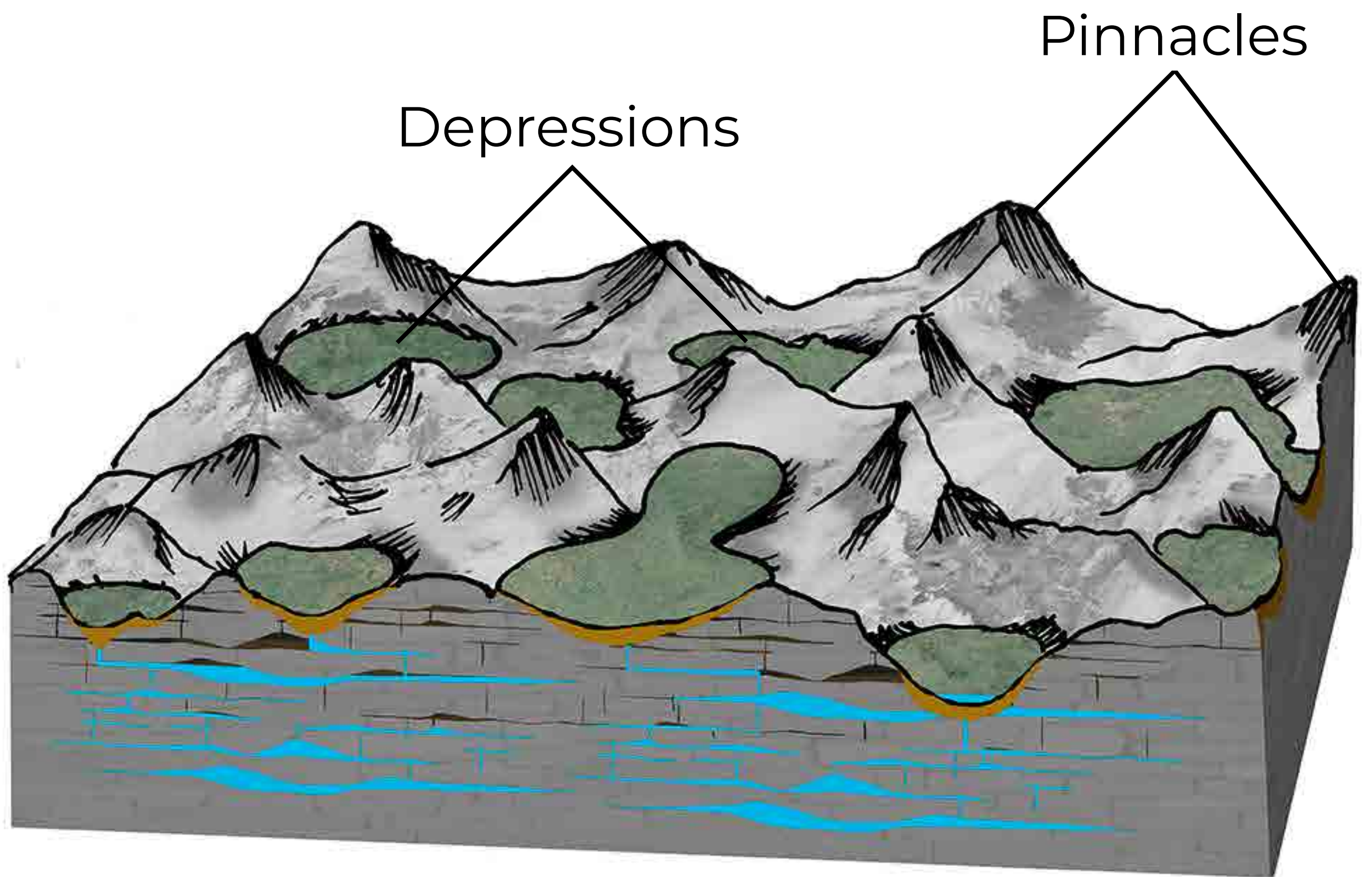
02

**A PYRAMID
IN OLATZ**



02

1. About 5 million years ago the limestones emerged from the sea and began to be dissolved by the rainwater that is acidified in contact with the atmosphere and vegetation in the soil.

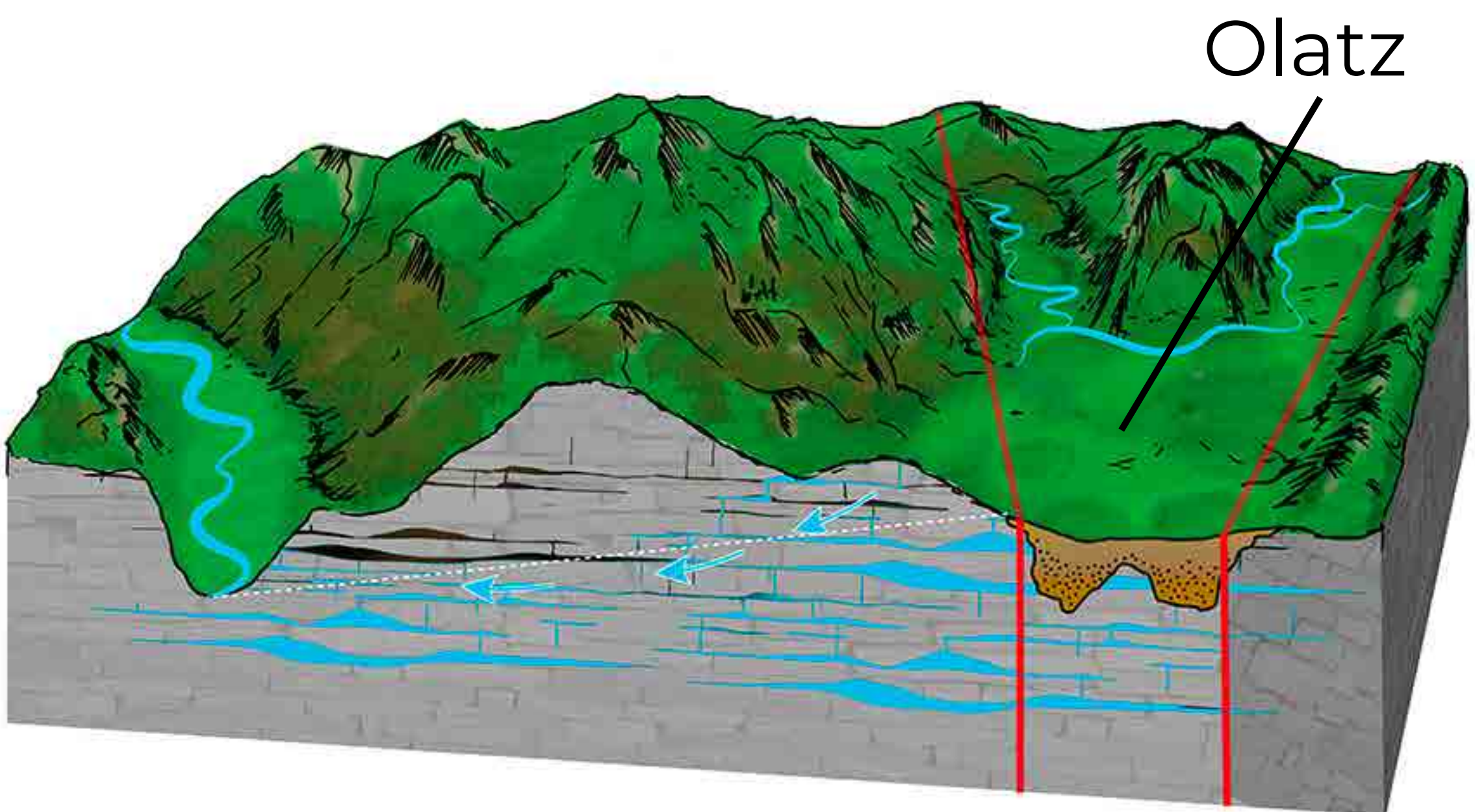
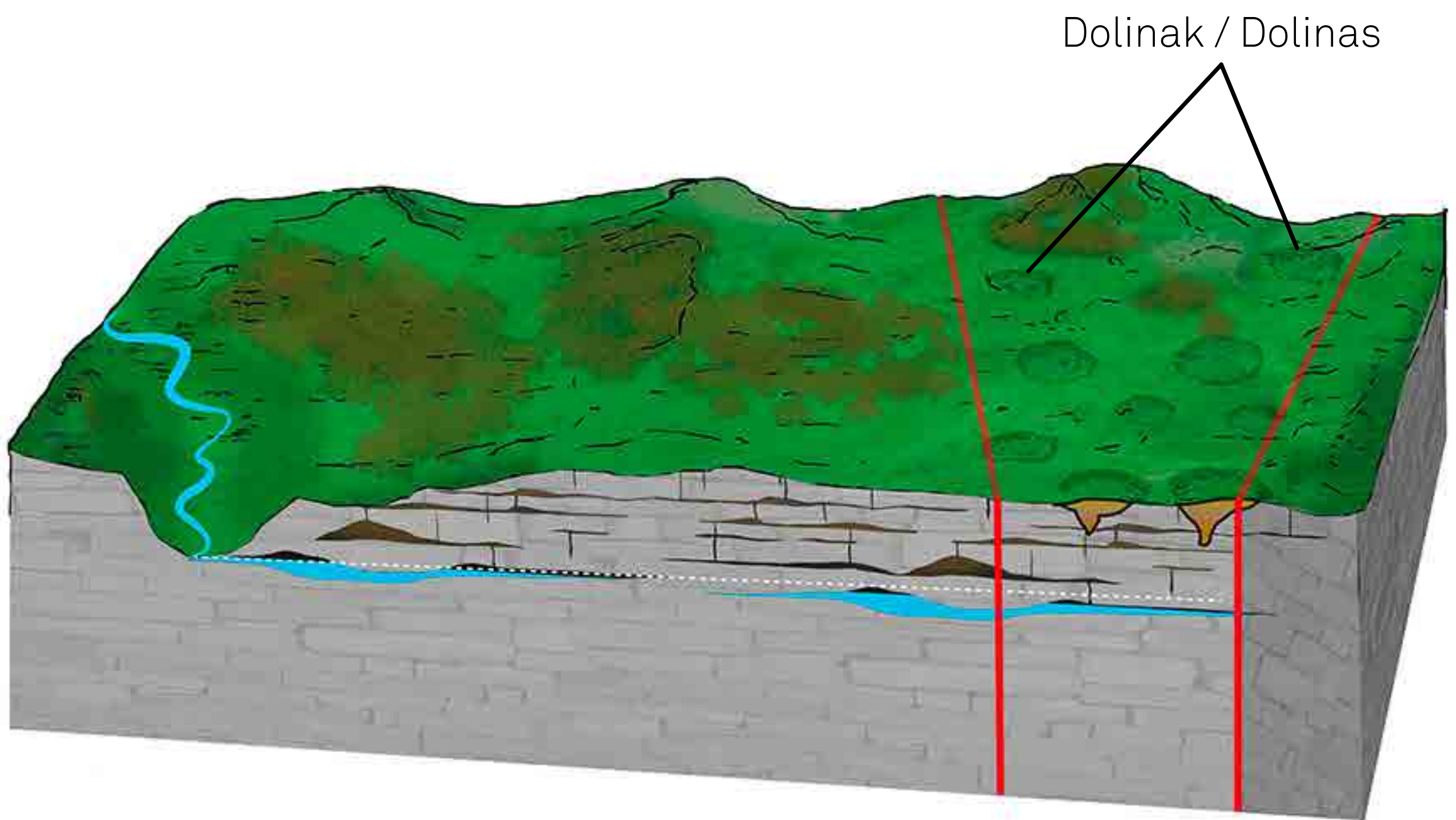
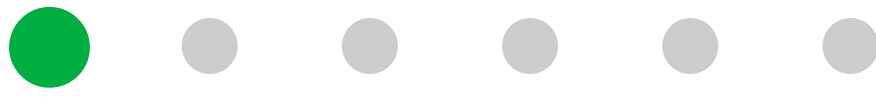


2. The dolines grew larger and joined together to give rise to a landscape with depressions, called *poljes*, separated by pyramids such as Mount Basarte.



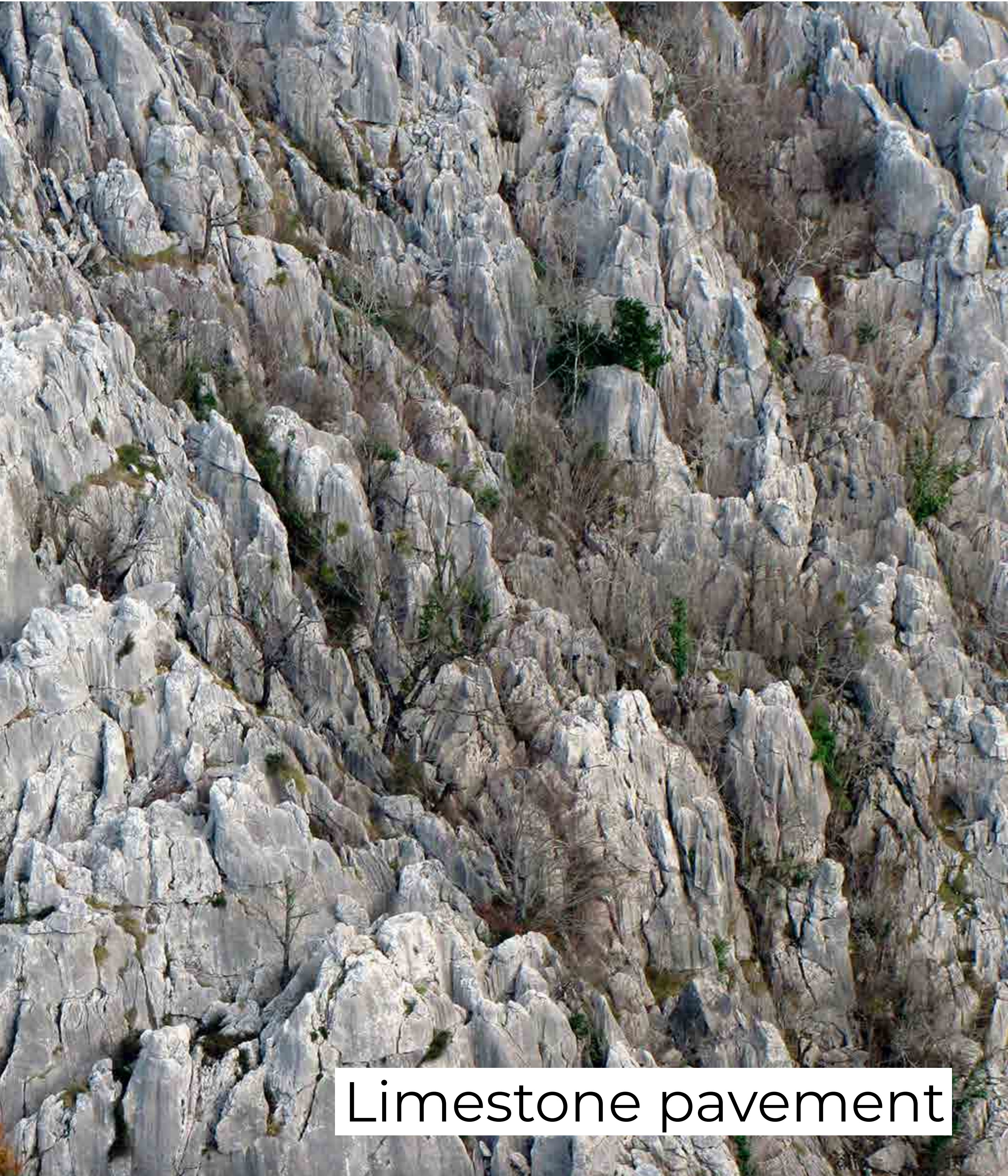
03

THE GREAT DEPRESSION



03

The central depression of Olatz covers 35 hectares and is about 250 m high. A total of **87.5 million cubic metres** of limestone have gradually been dissolved by the water.



Limestone pavement

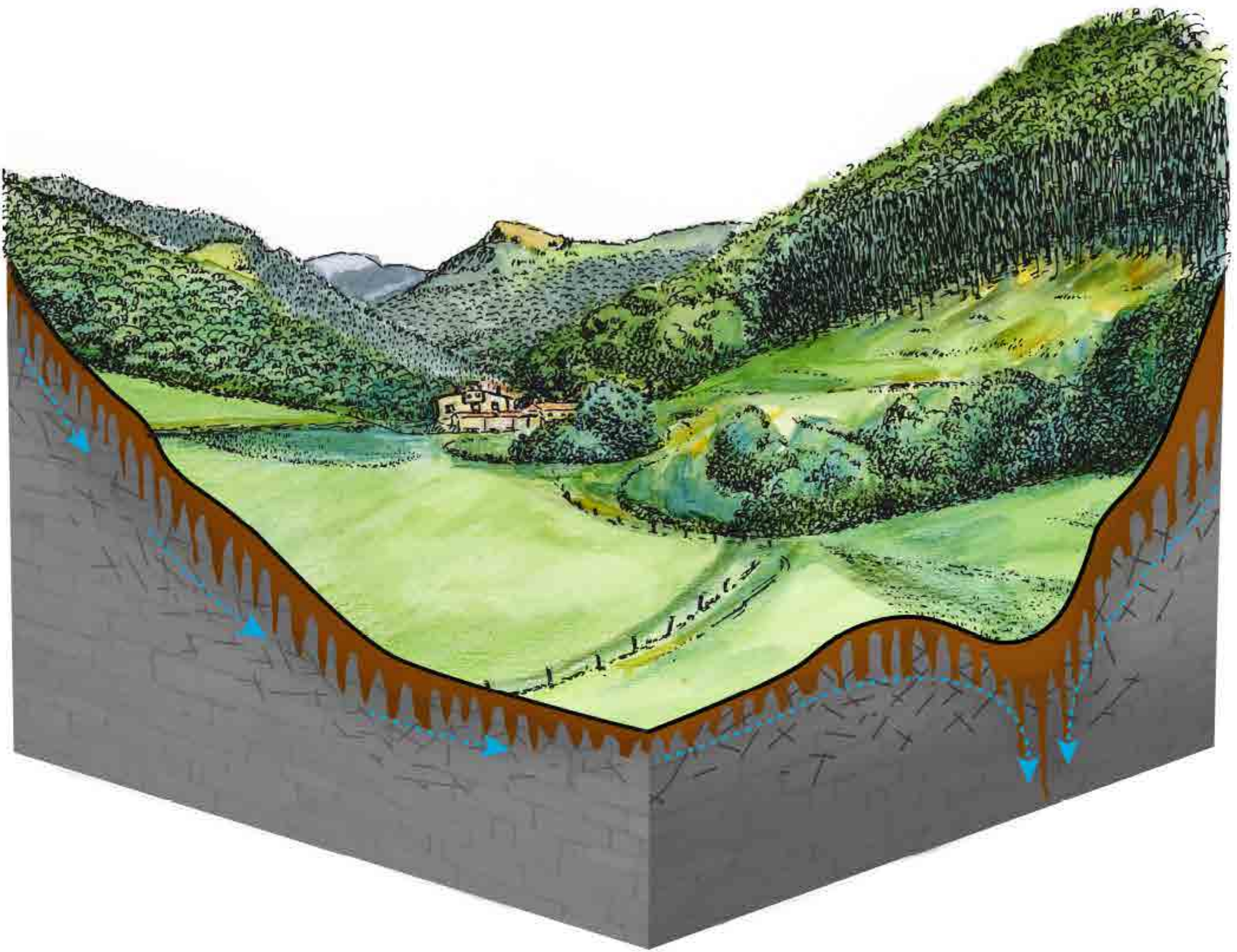
If the process has occurred over approximately 5 million years, how much has been eroded each year? Approximately **0.05 mm/year**. It's all a question of time.



The rainwater dissolves the rock and goes underground through the **rocky limestone pavement** on the hillsides and the **dolines** in the valley behave as funnels.



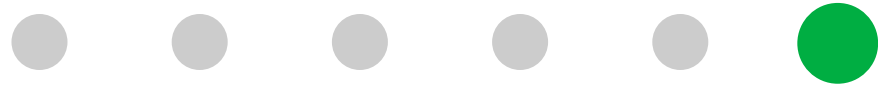
Diagram of a doline



The dolines behave like funnels that collect surface water.



The water from the Añorerreka and Olatzgoikoa streams enters the great **Kobalde** sinkhole, a cave located behind the hermitage of San Isidro, and appears again in the Deba river after travelling 3 km underground.



The Olatz polje is filled with about 10 m of clays. This is the non-soluble part of the limestones that is deposited at the bottom of the valley. They make up the farmland of the geopark.



O4+

**WARNING!
DANGEROUS CATTLE**



Betizu is the name given to a native breed of agile cattle with reddish fur. They live in almost complete freedom and can be considered close relatives of the aurochs or prehistoric bulls.



05

**THE SOLITARY
HOLM OAK**



05

The Korostola holm oak is a relic of when this land was almost entirely covered with dense holm oak forest. Notice that **the tree is growing on the rock itself**. That is how it adapts to the skeletal limestone soils of Mount Arno.



06

**IRABAÑETA.
THE KARST
FARMHOUSE**



1. This farmhouse is located inside a **doline**, protected from the wind and with good farmland.



2. The purest limestone rock slopes give rise to a **semi-covered limestone pavement** with little soil occupied by areas of holm oak. In the past, this would have been the source of heating for the farmhouse.

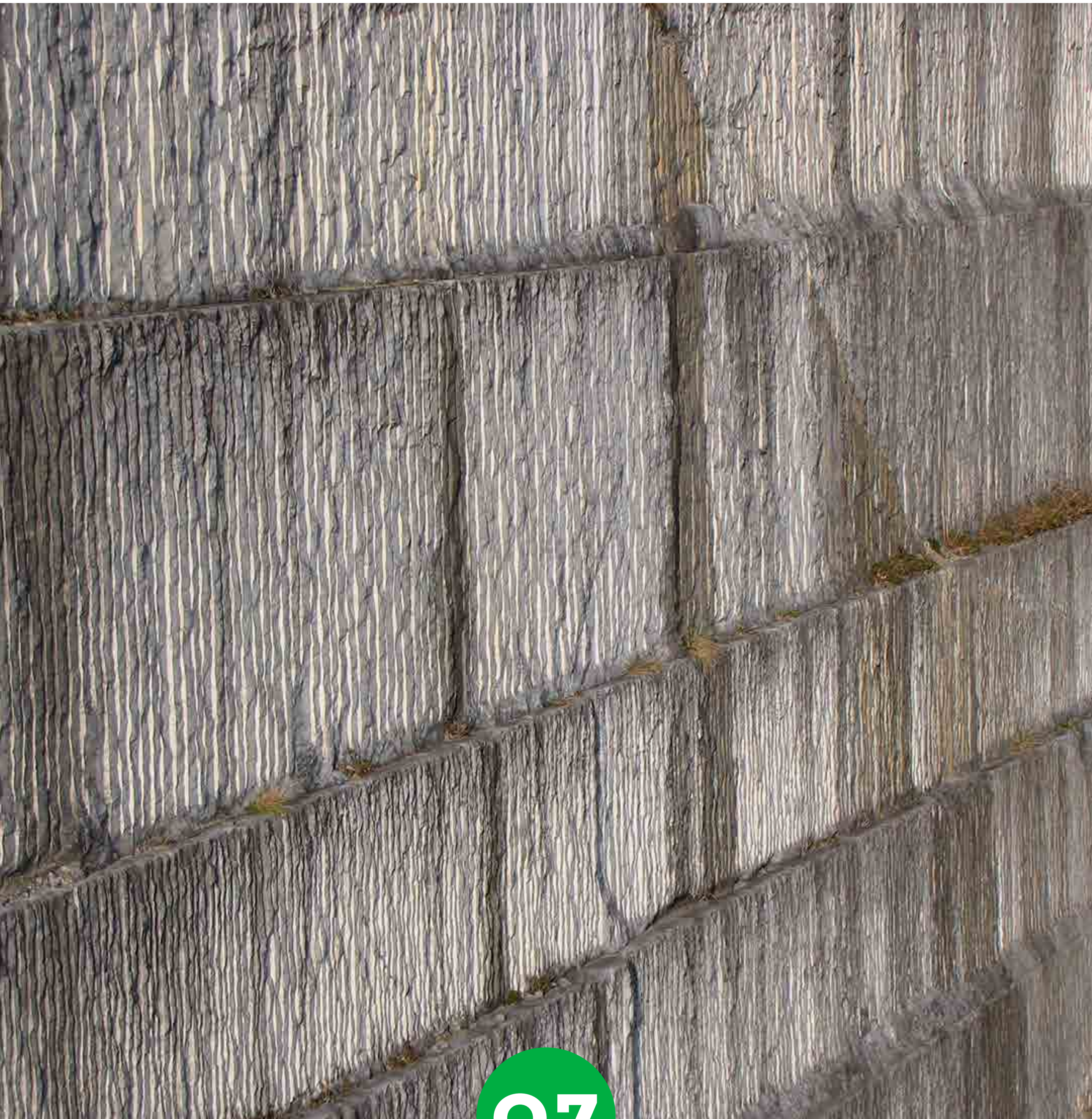


3. The slopes with more loamy rocks do not produce limestone pavement and give rise to more fertile **land** which is used as pasture.



O7

**EXPLOSIVE, PICK
AND SHOVEL**



The limestone rock of the geopark was quarried in several **quarries** throughout the 20th century. It has been used as building material, aggregates and even as **ornamental rock**. Most of them are now in disuse and work is being done to restore them.



08

**WHO HAS SCULPTED
THESE CHANNELS?**



08

There isn't any doubt. Limestone is a very hard rock, but those channels have been made by the water that runs along the surface of the rock. Over how much time? Over a few thousand years.



09

THE INHABITED CAVE



09

Take the detour. Jentiletxeta has some special magic. It was discovered in 1927 by **José Miguel Barandiaran**. Imagine that 10,000 years ago this cave was inhabited alternately by humans, deer, bears, goats and the occasional bull.



O10

ZIÑO A. A WORLD OF
ITS OWN

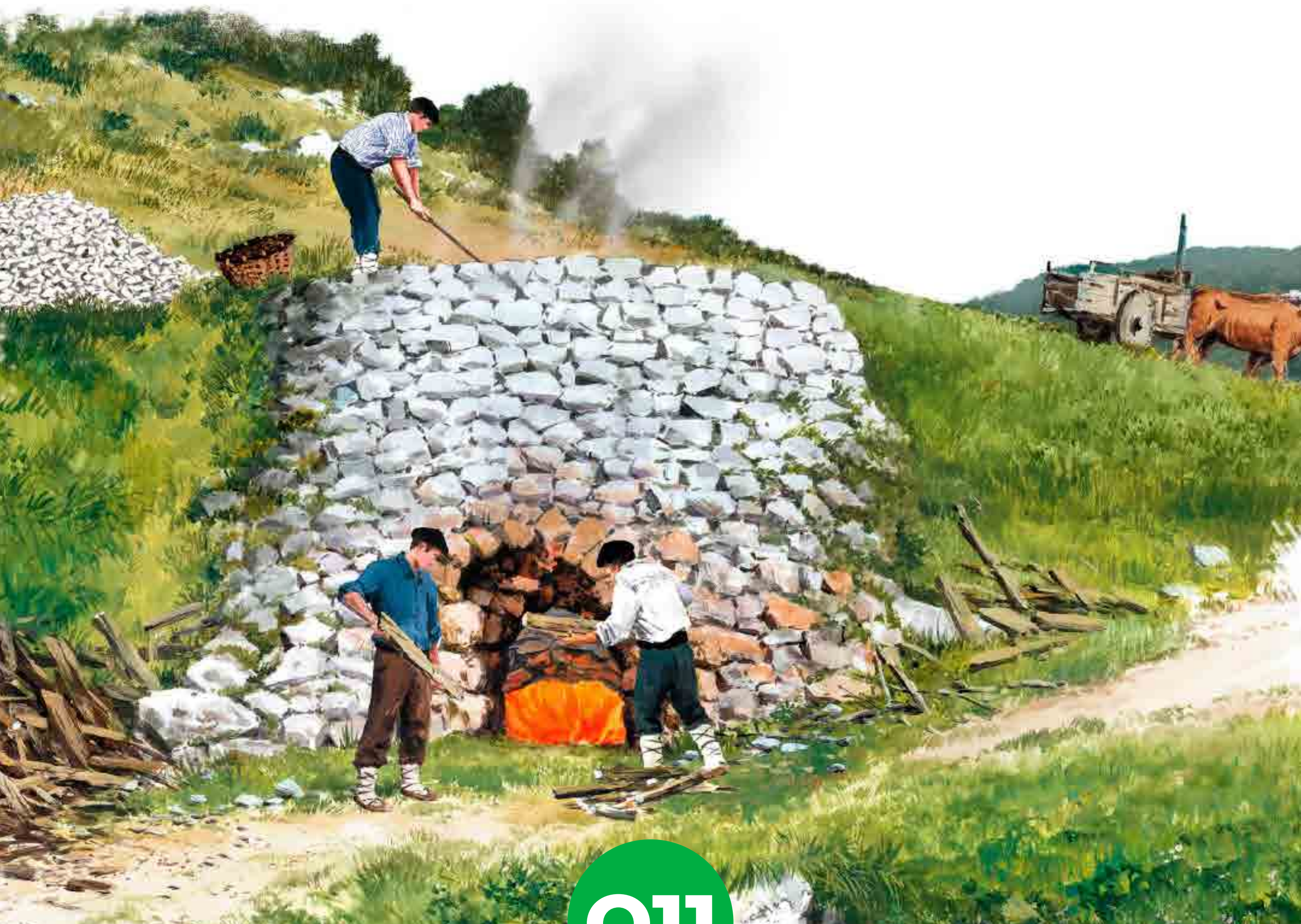


Ziñoia is farmhouse which is isolated like few others. It is located inside a polje similar to that of Olatz. The forest, farmland and pasture for the livestock are totally conditioned by the geology.



O T T

**EVERYTHING RIGHT
HERE AT HOME**



Ziñoa was practically self-sufficient. In addition to arable farming and livestock, Ziñoa also had a cider press, a mill, a carpentry, a bread-making oven and **a lime kiln**. Visit it and you will understand how important lime was for the Basque farmhouse.



The Ziñoa farmhouse was also the home of **Aritza** (Pedro María Txurruka), one of the best “**harrijasotzailes**” (“stone lifters”) of all time. On Sunday mornings the locals used to gather here to place bets. The stones to be lifted are still preserved here today.



BASKOS.

EL FORZUDO ARITZA DE MOTRICO

CON UNA PIEDRA DE 187 Kgs.

EIBAR 15-III-1925.





O12

**THE CULTURE OF THE
BASQUE FARMHOUSE**



012

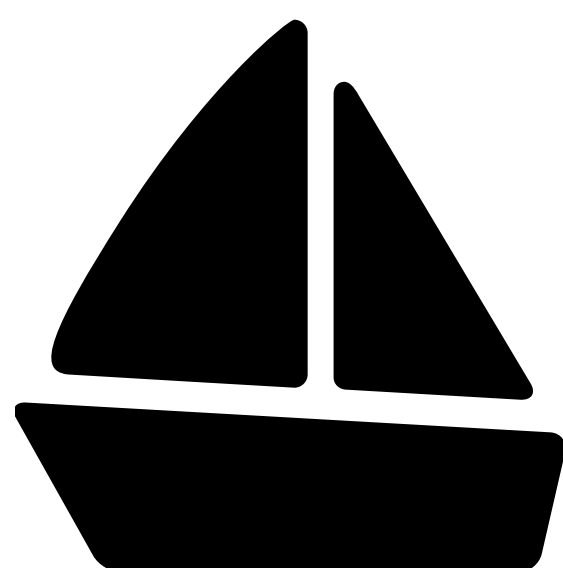
We return to the polje of Olatz, the hidden valley of the farmhouses. Geology has given rise to perfect land for agriculture. Here all the clays that the water has not been able to dissolve from the limestones have accumulated.

OLATZ GEOROUTE

MORE INFORMATION

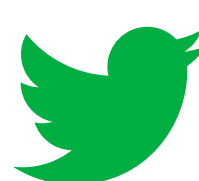


**SEE OTHER
GEOROUTES**



**PROGRAMME OF
GUIDED EXCURSIONS**

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Euskal Kostaldea - Costa Vasca



**Gipuzkoako
Foru Aldundia**
Diputación Foral
de Gipuzkoa



ETORKIZUNA ORAIN
Es futuro



BABESTUTAKO BIOTOPOA
BIOTOPO PROTEGIDO

**DEBA ETA
ZUMAIA**
ITSASERTZEKO
BABESTUTAKO
BIOTOPOA



EUSKO JAURLARITZA
GOBIERNO VASCO

INGURUMEN, LURRALDE PLANGINTZA
ETA ETXEBIZITZA SAILA

DEPARTAMENTO DE MEDIO AMBIENTE,
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