Clos Bagatelle, Geologically yours !

Geology has left a generous legacy of 4 outstanding terroirs to Clos Bagatelle.

Here, things are different. The relief of the landscapes evokes the ancient seas, lakes, rivers, the extinct dinosaurs and the mountains witness to a geological period of intense activity that has given this terroir its identity.

If the winegrower makes a thorough analysis of them, schists, limestone, marl and quartzite reveal their strong bond with climate, their hard or soft texture, their simple, complex or totally acid composition.

If the winegrower takes them as they are, they remain the loyal partners that give the best of themselves.

Le Clos Bagatelle, 4 terroirs

Terroir of Donnadieu, resulting from the Ancient Hercynian Mountain.

Climbing towards the foothills of Haut-Languedoc, the hills form a dense landscape intersected by narrow vales revealing progressively a secret terroir. This secret dates back to 300 million years when the Ancient continents collided forming a huge range of mountain stretching from East to West across Europe. The geological layers of that period were crushed, heated, folded and turned over like a blanket sliding from a bed. The schistous terroir was born.

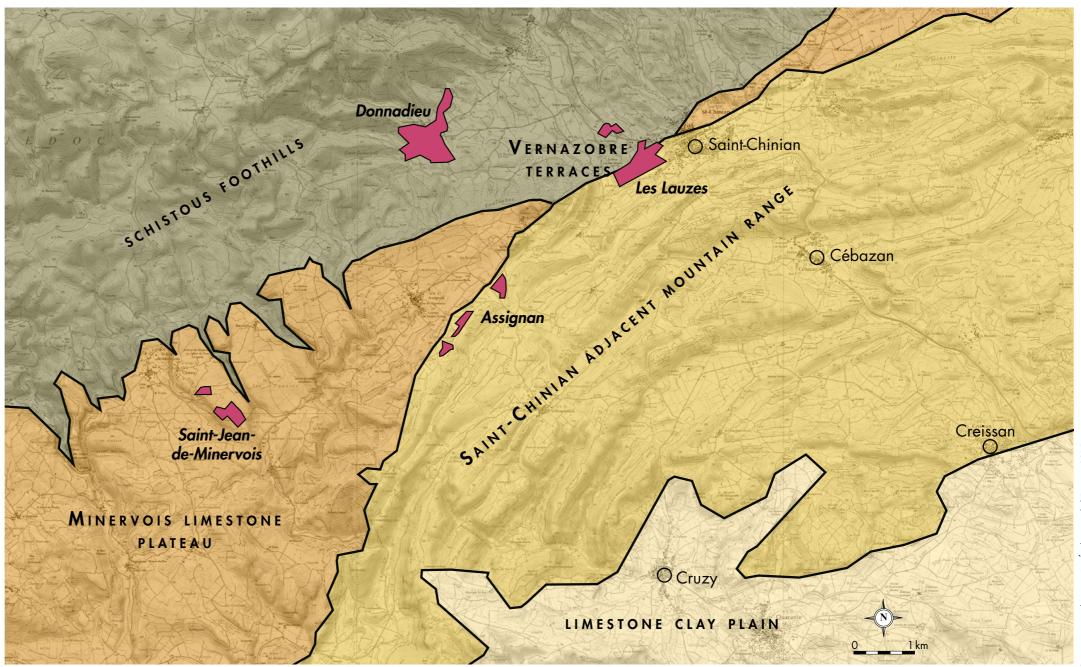
Terroir of Saint-Jean-de-Minervois resulting from the Atlantic

Strolling towards Minervois, the landscapes opens out on a huge limestone plateau, dazzingly white, notched with secret narrow gorges. Its history dates back to the formation of the Northern Atlantic Ocean who made an incursion in Minervois and left limestone layers comprising myriads of tiny fossils dating back to 55 million years. After it receded, lakes were formed on this territory leaving in their turn white limestone deposits that form the present plateau.

Arriving from the Mediterranean Sea, across the limestone clay plain, you will see the ridge of Saint-Chinian adjacent mountain range on the horizon which forms a succession of limestone bars, oriented North-East/South-East, alternating with marly sandstone anticlinal valleys. They form an outpost of the Pyrenees whose terrains have been dragged north as by a bulldozer when the Iberian plate collided our continent 40 million years ago.

Terroir of La Lauze resulting from recent glaciations

At the gates of Saint-Chinian, The Vernazobre river spreads its alluvial deposits in terraces dating back to 100 000 years. They were washed down from the near by mountain by the streams during the cold and humid period of the Quaternary Era. Boulders of quartzite extremely hard, mixed with silt constitute this open terroir.



Terroir of Assignan resulting from the Pyrenees

Terroir of Donnadieu

All Donnadieu plots are a located in the foothills on Ordovician schistous soils. The "serres" (hills covered with a thick vegetation) and the anticlinal valleys are south-east oriented. They are mainly composed of soft schistous soils with folds presenting an upright laminated structure, called "frites".



Maillol and Combes plots

Sheltered valleys

At the bottom of the long narrow anticlinal valleys, nestled in the

Quartzite alluvial deposits at the bottom of Maillol plot, V of the slope and coschist on the top. vered with strawberry

trees and holm oaks, the Combes and Maillol plots stretch along the winding streams. When the latter overflow, they deposit a thin layer of quartzite rocks and silt torn from the hills, upstream. Elsewhere the schist outcrops.

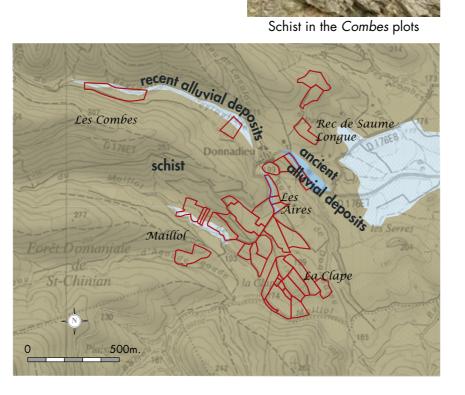
Aires plots

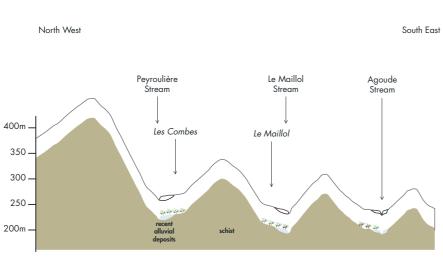
Quartzite in the stone walls

The high terraces surrounding the Aires plots form a narrow strip of ancient guartzite alluvial. Stone walls built with quartzite give evidence of their origin. The majority of the plots are situated on schist.



Stone walls made with quartzite









Brown shist

Roc de Saume Longue plots

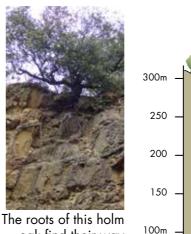
Grape ripening at night ! Roc de Saume Longue plots climb boldly on the slopes of the schistous foothills, dominating the entire vineyard. The brown tint of the schistous fragments permits to store the heat during the day and restore it during the night. Winegrowers of schistous areas are not wrong when they say that their grapes ripen also during the night.

Deeply rooted vines in schist ! The tilted schist folia favour the penetration of water and vine roots in the ground.

Roc de

aume Lonau

North West



oak find their way between the upright schist folia







La Clape plots

forming an open landscape.

Silky schists

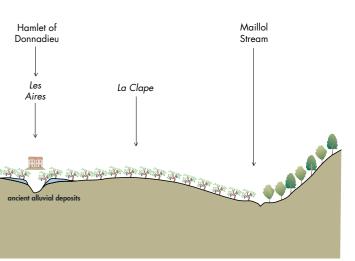
Here the fragments of schist are light, almost soft, scattered in a clayey soil. Their texture is silky thanks to microscopic clayey minerals close to talc. Originally the soils were composed of clay, however the schist submitted to erosion has gone back to being clay.

The flora of Maguis Acidic soils, issued from schist offer nutrients for a dense vegetation of Maquis dominated by strawberry trees and cistus.









La Clape plots circle the summit and the gentle slopes of a hill





Terroir of la Lauze

La Lauze plots

La Lauze plots are situated at the limit of the schistous bedrock to the north and Saint-Chinian Adjacent Mountain Range to the South. This limit is crossed by the Vernazobre River which has drawn a large valley in the landscape and has left its alluvial deposits. Therefore significant variables between one plot and another can be found in this limited perimeter.



Les alluvions actuelles au bord du Vernazobre

Sol marneux rouge

Schistes lie-de-vin

The soft green line of ash trees and poplars winding through the valley follows the course of the Vernazobre River. The riverbed and its natural hedgerow of trees and shrubs release freshness in the surrounding landscape. The valley also brings the humid cool air from the west. Today, the recent alluvial deposits from the Vernazobre River have left deep soils, silt and pebbles of quartzite from the mountain. They also supply a perennial water table, close to the surface, which ensures a good water reserve for the vine, even during the driest summer.

An escarpment of marl and sandstone

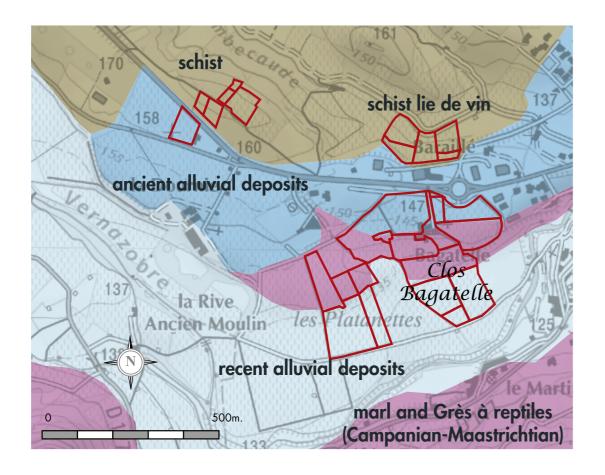
Climbing back to the Domain, a slight escarpment of red marl indicates an outcrop of marl and sandstone, grès a reptile (Campanian-Maastrichtian). The presence of red sandstone boulders in the nearby stone wall confirms this indication. Because these layers are waterproof, the waters infiltrated further up leak away or stagnate.

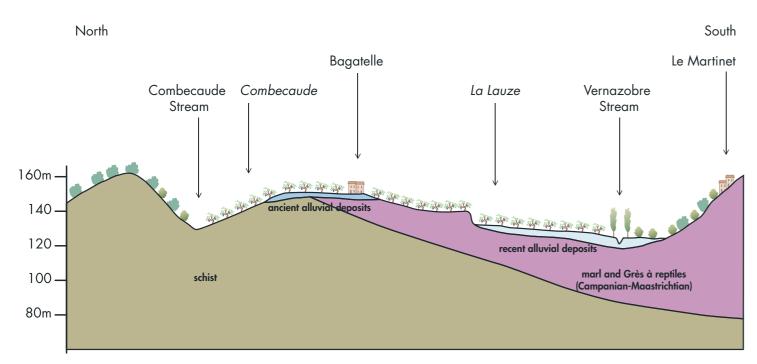
The Domain, on the upper terraces, dominating the valley Dominating the valley, Clos Bagatelle is situated on Ancient alluvial deposits of the Vernazobre River, essentially constituted of big quartzite boulders. Quartzite comprises quartz grains imbricated and welded which gives them an extreme hardness preventing s them from being eroded when they are carried away, conversely to the schist which is a very soft rock. These boulders have been torn out by streams from the large quartzite banks near Pont de Poussarou. The silica composing guartz gives an acidic character to the soils.

Terroir de quartzite sur les hautes terrasses



terroirs of the foothills as soon as you leave Saint-Chinian. In April and May, an explosion of colours creates an atmosphere of enchantment around the vinyards. The cistus with their fragile flowers renewed everyday compete of seduction, pink for the Cistus Albidus, dazzling white for the Citus Creticus, white with deep purple spots for the large flower of the Cistus Ladanifer, a rare species, unique in our region.





Freshness on recent alluvial deposits



Calcaires blancs lacustres et grès rouges

Surprising soft schists, conveniently with a wine lees colour, shape the slope of Combecaude Hill. Further away, green and brown schists, of a more classical colour, precede the schistous



Terroir of Assignan

Assignan plots are situated on the slopes of Saint-Chinian Adjacent Mountain Range more precisely in a long marly sandstone anticlinal valley stretching between the limestone bars that form a series of ledges in the landscape. The alternation of long shaped hills covered with garrigue plants or holm oaks and anticlinal valleys covered with vines is due to the presence of two overlapping faults. This landscapes gives an impression of waves displaying a landscape filled with contrasts between shapes and colours, wild Nature and tamed Nature.



Syrah planted on Terra Rossa

Puiserangue and Cresses plots

Matching Terra Rossa and Syrah !

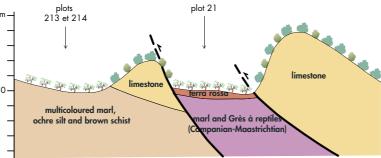
The soil of this 216 plot is constituted of clay of a deep carmine red, and of limestone rocky boulders, indicating the presence of a limestone bedrock underneath. This clay is e not soluble. It comes from the decarbonation by dissolution of the limestone rock by the rain water. Limestone was washed away by seepage while clay remained on the surface. Its red colour is due to the oxidation of the iron 300mit contains which occurred under a tropical climate. Hence its name "Terra Rossa".

Rivers that have disappeared !

The other plots are situated on multicoloured marls or ochre silt, loose and relatively watertight soils mixed with patches of brown 200msandstone spotted with white quartz grains.

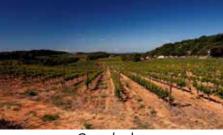
These patches can be seen on small wooded hillocks. They are deposits carried by ancient rivers.







Thyme in blossom is spreads its fragrance as far as the village of Assignan



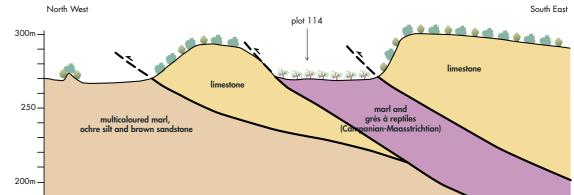
Cayrels plot



colour of which some patches are visible on the ground. The soil of plot 174 is composed of Terra Rossa (see Puiseranque)

Limestone stonewall





Limestone overlapping marl

250

200



The small plots of Rec de Nary perfectly fit the shape of the relief



Limestone bar covered with garrigue overlooking the vines on marly soils





Silt and brown sandstone

Multicoloured marl

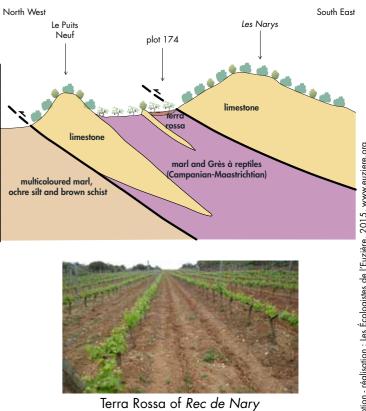
Cayrels and Rec de Nary plots

Dinosaurs in the vines !

The vineyard is situated on Marl and Grès à reptiles (Campanian-Maastrichtian) from the Cretaceous. Marl is a mixture of clay and limestone. It is loose and relatively watertight. Sandstone soils are sand bars from a river that flew there 70 million years ago. In this river bed, fossilized eggs and bones of dinosaurs have been found. This type of sandstone is characterized by a salmon



Les grès à reptiles



Terroir of Saint-Jean-de-Minervois

Lous Viallas plots

Lous Viallas plots are situated on marine limestone with alveolinidae fossils dating back to the beginning of the Eocene (55 million of years). These strata, sixty meter deep, lie on Ancient Schists of the Primary Era, which can be seen at the bottom of the gorges dug by the streams flowing down from the foothills. They form a beautiful ledge bordering to the North a magnificent limestone plateau.

Lous Naujous and Lous Beyres plots

schist

Lous Viallas

Lous Naujo

A light bench indicates a marl bar, softer soils covered by Lacustrine limestone, confirmed by fresh water fossil snails. This limestone layer, 20 meter deep dates back to 20 million years. It forms a stony plateau gently sloping down to the plain. Lous Naujous and Lous Beyres plots are situated on this terroir.

marine

limestone

Lous Beyres

grèzes

marl

lacustrine

limestone



A huge plateau



Nice exposure ! The strata constitute a flagstone that has tilted by a few degrees towards the South West during the formation of the Pyrenees, offering a nice exposure to this terroir.

Limestone strata

Thanks to Albedo !

is characteristic of the landscapes surrounding Saint-Jean-de-Minervois. It also gives the rock a great reflecting power of the sunlight (high albedo) and is especially beneficial to the ripening of the grapes.

Deep in the earth, Water is essential !

restriction). hidden under an arid surface.

Stratified scree



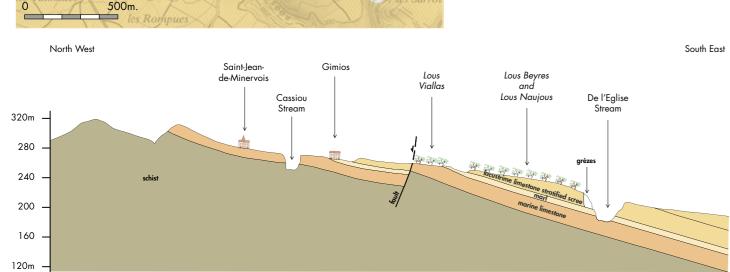
During the cold humid periods of the Quaternary Era, frost has favoured the fragmentation of limestone in tiny rock chips. These fragments have accumulated on the Southern slope of the plateau, sheltered from the strong winds coming from the mountain. These stratified screes constitute an interesting terroir, where water seeps slowly.

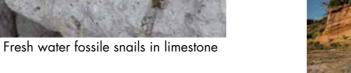
Les grèzes



Flora of the Garrigue Surrounding the vineyards and the gorges, the garrigue exhibits its flora with colours and scents in abundance.







Glacial Screes !

Here the limestone is solid, dazzling white colour. This whiteness



Limestone terroi

Although solid, limestone is slashed with widely open fractures through which all the rain water seeps constituting a huge qualitative water table, deep into the soil. (Shold be protected without

In this terroir, deep in the earth, the water essential for the vine is





