

AOC SAVENNIERES

Quintessence Minérale des schistes de Loire

The geological history of Savennieres dates back 350-400 million years ago. The rising “acidic” magma, which is rich in silica, potassium and sodium, eventually formed the **rhyolites**. The rising “basic” magma, which is rich in iron and magnesium, became the **spilites**. During a marine epoch, when the area was completely underwater, siliceous mud was deposited, giving rise to **phtanites**. The fine silt deposits have actually disappeared as they slid down the long slopes of the continental banks.

The collision of continental plates creates enormous heat and pressure. These collisions caused a metamorphosis in the rocks. The hardest rocks (rhyolites, microgranite, spilites, phtanites, gres, ...) became fractured and the cracks were filled with molten sand, which hardens to form **filon de quartz (quartz veins)**. The softer rocks folded and acquired a layered structure characteristic of **schists**.

The specific geological history of Savennieres itself is quite long and complex and is a product of clashing sedentary and tectonic processes. All the rocks found here are often deformed and split down their quartz veins. The ancient silts of the Devonian period give the green or lees colored schists, the ancient sands give the grey colored, etc.

From the Secondary Period up to today (295 million years), degradation processes dominate. These degradation processes are likely the origin of the variable colors of schistes that we find in Savennieres. For example, the oxides give the lees-colored schistes. And concerning the Loire Valley and the Valleys of its smaller tributaries, they were cut by the flowing waters following a depression originating during the Eocene (Tertiary) Period.

It was during the Quaternary Period that the actual landscapes we see today were formed. Slopes formed over hard rock bases while valleys formed over softer ones. It's why one finds the rhyolites, spilites, and phtanites, which are very resistant, at the confluence of rivers, but not the softer schistes, which are more easily degraded.

On the plateaus, the rocks were broken during periods of cyclic freezing. During the periods of thawing, the decomposed rock would slide down the slopes and fill the valleys. During cold and dry periods violent winds would sweep the plateaus and valleys of their sand, which was then deposited in reliefs with variable thicknesses. Finally, the successive layering of sand on pebbles and rocks gave the surface of the region a smooth appearance. During the interglacial periods, plants would slowly beginning to establish themselves and form the soils we recognize today.