

## Geological Overview of the Loire Valley

One-hundred million years ago, during the Upper Cretaceous Period, much of the Loire Valley was under the ancient seas of the Paris Basin. It was in this prehistoric era, known as the Turonian, that the chalk layers of Anjou (in the Middle Loire) were deposited. Tuffeau, as the rock is properly called, is chalky limestone composed chiefly of compressed fragments of Bryozoa — marine organism which lived in mass-like floating colonies. When exposed to air, the deposits are cemented by iron and magnesium oxides, adding valuable elements to the soil. When mixed with sand and flinty clays from later eras, the tuffeau creates the best vineyards soils. Cabernet Franc grows happily on the Cretaceous chalks of Saumur.

Tuffeau, limestone or chalk in composition, is not to be confused with tuff, which is a porous rock formed by the consolidation of volcanic ash.

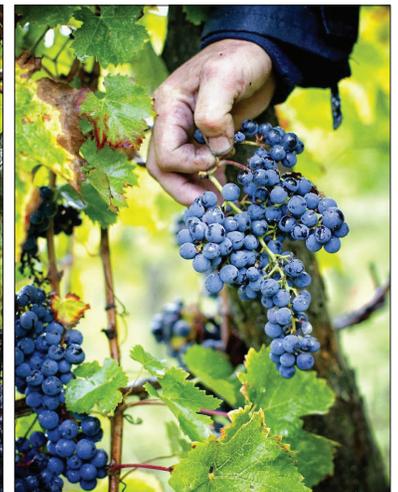
## Tuffeau and Troglodyte Dwellings

The Loire Valley is renowned for its grand châteaux overlooking France's longest river. Many of these châteaux were constructed from tuffeau, the soft yet strong creamy-white limestone quarried for centuries in the Loire region. While royalty and nobility lived in opulent splendor (curtailed by the French Revolution) the limestone quarries provided homes for the general populace. Carved out of cliff faces or tunneled underground, over time the labyrinth of troglodyte caves was converted into dwellings by artists, artisans, monks, farmers and soldiers. During the Norman invasions of the ninth and tenth centuries, the troglodyte caves provided the region with a prodigious underground defense system and escape routes.

The Loire Valley, from Sully-sur-Loire, east of Orleans, to the Maine River in Angers, was classified as a UNESCO World Heritage Site in 2000.

The greatest concentration of troglodytes in the Loire Valley is in the region of Saumur. There, whole villages are composed of these unique troglodyte dwellings. Their consistently cool temperature and humidity created a perfect environment for wine cellars, used by the local vigneron, and for mushroom beds for the champignon de Paris. At the end of the nineteenth century, when construction of the Metro in Paris destroyed the mushroom caves under the city, les champignonistes moved into these abandoned caves. In contrast to the Loire's majestic, often grandiose, châteaux, an economy of scale, practicality, authenticity, ecological consciousness and direct contact with nature characterize the troglodyte dwellings.

Clau de Nell was named in 2000 by the previous owners, Claude and Nelly, but the domaine has been in existence for 100 years or more, as the age of the vines attests.



## Clau de Nell and Serendipity

Domaine Clau de Nell is located in the Loire Valley wine region of Anjou, southeast of Angers and northwest of Saumur, in the village of Ambillou-Château. The vines range in age from 30 to 90 years. The vineyard, situated on a south-facing knoll, consists of eight contiguous hectares (19.77 acres), of which five hectares are planted to Cabernet Franc, two hectares to Grolleau and one hectare to Cabernet Sauvignon. The soils are sandstone grit and red flint over tuffeau (the soft limestone of the region). The vineyard is on a slope at an altitude of just 90 meters (295 feet), 120 kilometers (75 miles) from the Atlantic Ocean. From the top of the knoll, surrounded by open countryside, the Loire River can be glimpsed in the distance.

These vineyards have been biodynamically cultivated since 2000. Significant financial difficulties and a call for aid from the previous proprietors brought the property to Anne-Claude

Leflaive's attention. In 2006, Anne-Claude and her husband, Christian Jacques, had created a company to help new biodynamic wine growers take advantage of their established commercial network. In order to assist the struggling venture, in 2008 they purchased the domaine, which had not produced any wine for three years due to lack of means. It was a moment of serendipity for the abandoned vineyards and the Leflaive-Jacques family, culminating with the arrival of Sylvain Potin, well-versed in biodynamic viticulture, to be their estate manager. Christian Jacques concludes that "We have not chosen Clau de Nell, so much as Clau de Nell has chosen us!"

Yields are less than 30 hectoliters per hectare. Harvest is by hand and entirely destemmed prior to cuvaision, which lasts for 20 to 30 days. The wine cellars are centuries-old, historic troglodyte caves created from the tuffeau (limestone) quarries, which maintain a constant temperature

of 14°C (57°F). The wines are aged for 18 months in oak barrels in the caves which were ready to welcome the new wines.

Grolleau, a varietal native to Touraine, has played a major part only in Rosé d'Anjou in the past, as it is prone to very high yields. When yields are limited, however, and the vines are very old and cultivated 100% biodynamically, as at Clau de Nell, the results are surprising, with a remarkable purity of fruit and velvety, tight tannins.

Chenin Blanc, indigenous to the Loire Valley, has been planted in 2012 and 2013 on 1.5 hectares (3.7 acres) of limestone/clay soils that are most suited to this noble white varietal of the region. These young vines at Clau de Nell will come into production in 2015. Clau de Nell will produce a Chenin Blanc "Saumur" in 2013 from one hectare of a neighboring vineyard which is farmed biodynamically.

