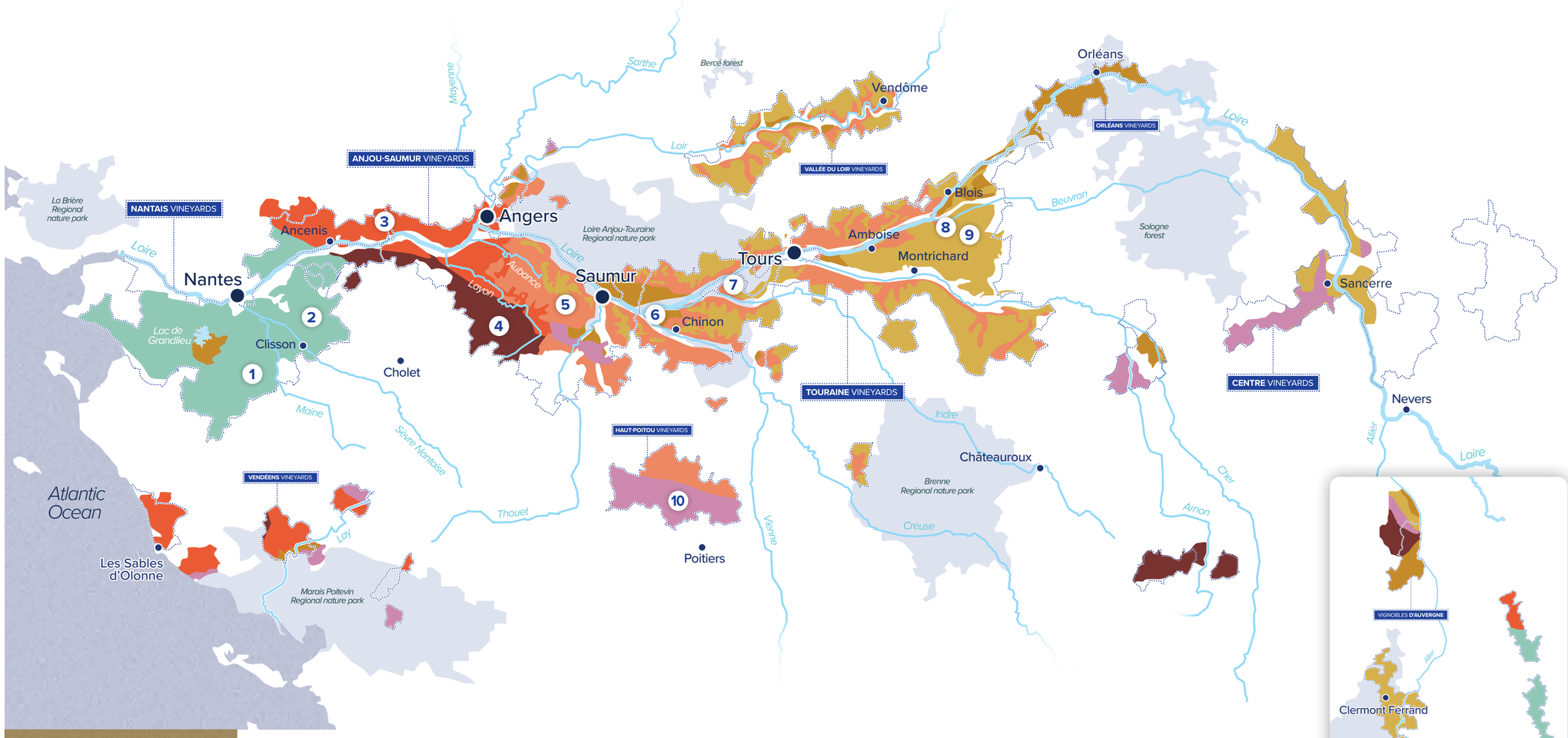
CLIMATE AND GEOLOGY **OF LOIRE WINES**

OCEANIC CLIMATE — OCEANIC / CONTINENTAL INFLUENCE — CONTINENTAL INFLUENCE



GEOLOGY

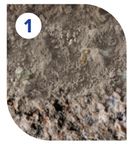
ARMORICAN MASSIF AND MASSIF CENTRAL *ancient bedrock*

- Gneiss, Granite and related rocks
- Precambrian schist
- Primary schist

PARIS BASIN *sedimentary*

- White and yellow tuffeau Turonian *(creatiaceous)*
- Alluvium sand and gravel
- Senonian sands and flint clay
- Limestone *(jurassic)*

MAGMATIC ROCKS



1 GRANITE

Originating from the earth's core, granite is a magmatic rock that is emblematic of Brittany and its heritage. The Melon Blanc grape variety flourishes on this hard, acidic stone, made up of minerals visible to the naked eye, giving Muscadet wines one of their most original expressions.

2 GNEISS

Resulting from the metamorphism of granite or schist, gneiss is the other rock in the Nantes vineyards with a maritime history. This layered, heat-restoring mineral provides nourishment for the vines' roots and also gives life to Muscadet wines.

3 PRIMARY SCHIST

Primary schist can be found in a variety of forms and colours (slate, sandstone, purple, etc.). These nuances explain the individuality of a production, like the Coteaux de l'Aubance for example. The thin slates that are traditionally used for roofing in the region come from this.

4 PRECAMBRIAN SCHIST

This metamorphosed schist provides the mineral base that shapes most of Anjou's finest and most famous wines, crafted from Cabernet Franc and Chenin Blanc grapes. At more than 530 million years old it makes up the vineyard's oldest soils, and is located mainly to the south of the Loire and Layon rivers.

SEDIMENTARY ROCKS

WHITE AND GREEN CHALK

5

A soft chalk, this sedimentary limestone of marine origin was used to build the region's architectural heritage, including the famous châteaux of the Loire. The Cabernet Franc and Chenin Blanc vines planted here produce wines that are often structured and complex. The natural tuffeau cellars provide ideal conditions for storing our best Saumur and Touraine wines for several decades.

6 ALLUVIUM SAND AND GRAVEL

Alluvium, known locally as "varennes" is a sedimentary deposited by watercourses (pebbles, gravel, rolled pebbles, sand, etc.). Most of these soils are planted to Cabernet Franc in Chinon and Bourgueil area, where they produce delicious, round, velvety wines.

YELLOW CHALK (TURONIAN TUFFEAU)

7

Yellow tuffeau is a limestone rock derived from turbulent sedimentation in warm, shallow seas. Known locally as "aubuis", these soils offer the vines deep reserves of water and minerals, giving power to wines such as Vouvray. The Turonian geological stage was named after the city of Tours.

8 SENONIAN SANDS

As the sea gradually retreated (around 100 million years ago), it deposited the sands that we find today along the entire length of the Loire. The vines readily take root in these permeable, easily cultivable soils, producing light, fruity wines.

9 FLINT CLAY

Known locally as "perruches" or "chailloux", flint clays are found in Touraine, alternating with sandy formations. Chenin Blanc and Sauvignon Blanc are well-suited to these soils warmed by the flint on the surface, which often give them a mineral expression.

10 LIMESTONE (JURASSIC)

This sedimentary limestone rock of marine origin is rich in oyster fossils. Combined with the clay on the hillsides, it gives Sauvignon Blanc wines finesse and length on the palate. It is also found in the western Loire basin.

CLIMATE

Generally temperate, the climate of the Loire is oceanic in the Nantes and Anjou regions; a continental influence emerges from the Saumur area to Touraine, with oceanic weather patterns being gradually stopped by the hilly relief. In Touraine, the climate becomes semi-continental, with an increasingly limited oceanic influence.

The Loire and its many tributaries play a significant moderating role: by fostering the existence of a multitude of microclimates conducive to viticulture, they contribute to the great diversity of the wines produced. Their buffering effect is decisive in the production of sweet and medium-sweet wines.

In the Nantes region, the oceanic influence attenuates seasonal variations: autumns and winters are mild, summers hot and often wet.

Anjou has an oceanic climate, with mild winters, hot summers with plenty of sunshine, and small temperature differentials. There are also some very dry microclimates where Mediterranean flora thrives.

In the Saumur area, westerly winds are stopped by the hilly terrain, the climate becomes semi-oceanic and seasonal variations are naturally more pronounced.

This is also true of **Touraine**, which lies at the crossroads of oceanic and continental influences. The succession of valleys running east to west, where the continental influence is more dissipated, creates microclimates that are particularly favourable to vine-growing.

The vineyards of **Centre-Loire** experience a semi-continental climate with strong temperature fluctuations.

In general, these regions are also characterized by a very wide variety of microclimates, depending on the altitude and orientation of the slopes and by a more or less strong influence of the dominant wind, "the bise" from the northeast.

MAIN GRAPE VARIETIES

The harmony between grapes and environment, where diversity and unity combine, is all the more exceptional in that some of the region's great grape varieties originated along the Loire, while others come from the east or south-west of France. The great originality of Loire wines lies in the fact that most of them are made from a single grape variety: Melon Blanc, Folle Blanche ; Chenin Blanc, Cabernets and Gamay ; Sauvignon Blanc, not to mention Grolleau, Côt, Pineau d'Aunis, Chardonnay... This unique array of grape varieties offers a highly diverse and expressive range.

VINS DE Loire