

T O N G



— ABOUT WINE —

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TERROIR

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SOIL SEARCHING

— *By Claude & Lydia Bourguignon, France* —

**“DESPITE WHAT MANY EXPERTS
BELIEVE, TERROIR IS NOT A MYTH”**





“Terroir” is a French concept involving the complex combination of climate, geology, topography and soil that determines the taste of a wine. It’s a word that has no real equivalent in other languages.

The well-respected agronomists Claude and Lydia Bourguignon, based in Burgundy, have been running their laboratory LAMS (Laboratoire d’Analyse Microbiologique des Sols) since 1989, studying how to produce healthy crops by promoting a soil’s microbiological life. They work, among others, with producers Romanée Conti, Jacques Selosse, Didier Dagueneau, Mas de Daumas Gassac, Elio Altare and Vega Sicilia.

Our laboratory has carried out a scientific study of the biology of soil that sheds new light on terroir and will help develop viticultural practices. It is soil and not vinification that prevents wine-makers from improving the quality of their wines. Despite what many experts believe, terroir is not a myth. The terroirs that produce great wines are few and far-between, and they will only improve if their soil is treated with due respect.

So can we speak of terroir when vine roots don’t dig deeply into the earth? Must we see chemical weeding as unavoidable? In our view, if Europe wants to maintain the credibility of its AOCs, it must forbid the use of pesticides in AOCs. “Our soils need less chemistry and more life,” should be the leitmotif for future viticulturists.

Only temperate climates will do

Temperate climates are the only ones suited to the production of fine wines. Over the centuries, wine-makers have created grape varieties suited to local weather variations; Pinot Noir and Chardonnay in the northern temperate zones, Cabernet and Sauvignon in central areas, and Grenache and Marsanne near the Mediterranean.

If the weather is too hot, wines tend to be heavy and to contain higher alcohol levels. Fine wines require moderate heat with sunny summers and, starting in September in the north and March in the south, sunny days and fresh nights. Sugars mature early in the summer and phenolics mature in late summer, something New World wine-makers often ignore,



MINERALS MEAN

LIFE

— *By Olivier Humbrecht MW, France* —

Minerality is wine's ultimate measurement. Minerality is what makes the difference between a technological product and a unique object born of skill and artistry: a wine of great origin. It is the direct influence of a place on the style of a wine and it can't be faked. The taste of minerals is delicate. Wine-making techniques can hide or alter it, but respectful wine-making will always allow the soil to exert its influence.

Olivier Humbrecht is the owner of the well-known Domaine Zind-Humbrecht in Alsace, where he makes wine using biodynamic methods. He is also a Master of Wine. His wines are world famous, and that is thanks to biodynamics, he claims.

The grape vine, like most other plants, transforms air into matter using an elaborate mechanism called photo-synthesis. Photo-synthesis is arguably the biggest energy-producing factory on earth.

Using solar energy, light, water and gases present in the atmosphere, plants produce huge amounts of carbohydrates. The result is that almost 98% of a vine's weight is made up of water and gas (carbon dioxide, oxygen and nitrogen – to mention the most important). Most of the ingredients in grapes needed to make good wines (tannins, sugars, acids, etc) are a direct result of photo-synthesis.

The system works so well that today many fruit and vegetables are grown in hydroponics units. The roots grow in shallow sandy or gravelly irrigated containers. The micro-elements the plants need are added to the irrigation water: mostly potassium, phosphorus and iron, with extra nitrogen for abundant crops. Soil is no longer needed to feed the plant.

And yes, wines too can be grown in this way! Is it a good idea? It certainly reduces costs, but I hope to demonstrate that it doesn't produce quality wines. I chose this comparison because I believe that most vines grow on soils

that can't feed them naturally and can't supply the unique composition of minerals that would produce unique wines.

Minerality mysteries

I often use the word "minerality" to describe a wine that smells strongly of place and soil. Words like "flinty", "petroly" or "earthy" describe a mineral sensation on the nose. It's a misnomer because, in fact, minerals are odourless. Chemically, minerals don't contain volatile radicals, so they don't evaporate and they don't smell.

Some minerals that may be associated with other volatile elements will have a detectable aroma. For instance, iodine mixed with salt will give the salt a sea breeze character. Some wines' mineral nose can be linked to specific wine-making techniques (long lees contact, more reductive vinification, sulphurs or sulphites) or the absence of strong varietal characteristics (for example, a Riesling nose will always appear more mineral than a Gewürztraminer because it is less aromatic).

It is mostly a sensation or association of elements that makes us think of minerality



**THE TRUTH IS IN
THE LOCATION**

— *By Alex Martin & John Watling, Australia* —

