



The terroir of Grands Crus Classés 1855 — The Terroir of the Medoc

An Exceptional terroir

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THE CLIMATE, THE GRAPE VARIETIES, THE SOIL

The 1855 grands crus classés owe their exceptional character in part to the efforts of the winemakers over the decades, but also largely to the exceptional qualities of the terroir. Terroir is a French word from the Latin territorium. Yet terroir means much more than just the soil in which the vine grows. It refers to all the characteristics of the vineyard that influence the finished wine, such as soil, climate, exposure to the sun, and so on. The terroir is the bond between the bottle of wine and the place that made it what it is.

Winemakers were aware of the influence the terroir could have on the quality of the wine as early as Roman times. In the Bordeaux region, the notion of the terroir was developed in the Middle Ages, when wines were named after the village where they were grown. Evidence survives to show that prices varied according to the village, suggesting that some villages had a reputation for producing better wine than others. Already we can see an as yet very primitive hierarchical classification emerging in the Bordeaux region. In the Middle Ages, however, judging the quality of wines was a far more hit-or-miss affair than today, because all of the wines from the same village were sold at roughly the same price, independent of their quality. It was not until the seventeenth century that the notion of individual estates began to emerge. In purely chronological terms, Château Haut-Brion was the first estate to sell its produce separately. As a result of this change, the notion of the terroir became much more clear-cut, as the place of origin of a wine would now be traced to within a few acres on an individual estate rather than the thousands of acres that a whole village's vineyards might cover. Perhaps surprisingly, the English wine market played a decisive part in this development, as the English were prepared to pay high prices for excellent wines, and one way of guaranteeing consistent high quality was to identify the terroir.

The famous philosopher John Locke visited Bordeaux in 1677, and wrote an account of his travels in the region. This account is a valuable source of information on how contemporary winemakers understood the effects of the terroir on the wine. Locke's voyage to the Bordeaux region was akin to a pilgrimage—so impressed was he by the quality of the Haut-Brion wines he had drunk in London that he decided to go and see the estate for himself. He noted that the owner of the estate explained that the superb quality of his wine was due to the porous, gravelly soil and good slopes, light composting, and old vine stocks. These are precisely the qualities recognized as producing the finest wines today. It is amazing to think that over three centuries ago, winemakers had already discovered this.

John Locke's journey also illustrates the remarkable traceability of wines from the great terroirs, like the wines included in the 1855 classification. Whereas vins de marque—vintage wines—are blends of wines from various estates, a vin de terroir will always be made of grapes grown on one single estate. This is what gives it its principal characteristics and qualities, and it also means that wine lovers can visit the vineyard, admire the very vines that produced the grand cru classé, and talk to the winemaker who produced it. Nowadays, the issue of traceability has become vital in the food industry as a whole, but the 1855 classification recognized its importance a century and a half ago.

The Climate

The growth of the vine and the ripening of the grapes are very dependent on weather conditions such as the average temperature, rainfall, hours of sunshine, and wind. Vines are extremely vulnerable to cold snaps, unexpected late frosts, and hailstorms, which can destroy a crop representing a year's labor—not to mention income—in just a few hours. The quality and character of wines are greatly in-

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fluenced by the weather. The word *terroir* includes this notion of the vine's sensitivity to the prevailing weather conditions.

For the grapes to ripen, the vine needs warmth and light. If the weather is too hot, the grapes will produce too much sugar. They can still be used for wine, but the high sugar content is bad for the taste. According to the well-known wine experts Ribéreau-Gayon and Peynaud, if the weather is too warm, the grapes ripen too quickly, burning up the essences which give great wines all their finesse. In other words, the best wines are produced in regions that enjoy clement weather, sufficiently warm to ripen the grapes, but not so hot that they reach maturity too quickly. The climate in the Médoc region is perfect for winegrowing. The average annual temperature is 55°F (13°C), and 68°F (20°C) in July and August.

The average rainfall is less important. Grapevines are very adaptable, capable of surviving extreme droughts. They can be cultivated without the need for irrigation in regions with an average of just sixteen inches (400 mm) of rainfall annually, as long as the water does not drain away too quickly. They will also adapt to very wet conditions where the average rainfall can be as much as forty inches (100 cm). However, in such conditions, the vine will put its energy into growing shoots rather than building up sugars in the grapes, and fungal diseases will be harder to prevent. The average annual rainfall in the Médoc region is thirty-three inches (850 mm), slightly over the level where grapes attain the perfect sugar concentration. However, this is not a problem because the soil allows ample drainage.

The Médoc is rarely affected by hailstorms, probably because it is not a very hilly region. The Atlantic seaboard and the Gironde estuary regulate the climate to a certain extent so that the region is hardly affected by unexpected rises or drops in temperature. Late frosts are an unusual occurrence. In 1991, for example, a terrible late frost hit the Bordeaux region in the night of the 20 to 21 April. The *crus classés* from estates lying along the banks of the Gironde, such as Château Latour, were relatively unaffected, and went on to produce wines of excellent quality that year.

Weather conditions in the Bordeaux region can vary dramatically from one year to the next. This results in a marked variation in the quality and character of the wines, depending on the year the grapes were harvested. This is why the question of the vintage is so important. The wine's character reflects the weather in the year it was bottled. Wines tell us that the years 1945 and 1947 had long, hot summers that produced great vintages, that 1963 and 1965 were very rainy—so wet, in fact, that many winegrowers did not even bother to bottle the weak, insipid wine under the estate label. Quite apart from the question of the quality of the wine, the vintage is a way for each estate to produce a different wine each year while maintaining the particular style for which the *cru* is appreciated. The vintage is a way of exploring various facets of the *cru* with each grape harvest. In years like 1978 and 1988, when the summers were rather cool, the grapes ripened slowly and the harvest was later than normal, giving the grapes more time to develop their aroma and producing a wine of great finesse. Hot summers like those of 1982, 1989, 1990, and 1995 give powerful wines. Since average rainfall in the Bordeaux region is slightly higher than the ideal level, it is perhaps unsurprising that all of the greatest vintages were harvested in years when rainfall was below average for the region in the months from June through September.

The Grape Varieties

Several thousand grape varieties are cultivated throughout the world. Each variety is the result of careful crossbreeding by generations of winegrowers to develop certain characteristics, such as early or late ripening or ideal sugar content. However, just a few dozen of these varieties are considered suitable for use in truly great wines. The grape variety must be capable of adapting to the prevailing weather conditions, especially the time the grapes take to ripen fully. An early ripening variety in a hot climate will produce mature grapes earlier than elsewhere. They are harvested in August—or February in the southern hemisphere—and will have a high sugar content, but will be lacking in freshness and the aromatic compounds that give great wines their subtlety. On the other hand, a late-ripening variety planted in cooler northern climes may not produce ripe grapes at all and will produce an acidic, grassy wine lacking in color. Part of the reason the *grands crus classés* of 1855 are so outstanding is that the grape varieties are perfectly adapted to the prevailing weather conditions, ripening at exactly the right moment, except in unusually cold years such as 1972. The grapes ripen slowly, allowing them to develop the aromatic compounds that give the wine its rounded body. This perfect harmony of grape varie-

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ties and weather conditions is very difficult to achieve. The same grape varieties in a slightly warmer or cooler climate will produce a different wine altogether. The 1855 crus classés, like other Bordeaux wines, are the result of a careful blend of grape varieties. The art of choosing complementary varieties is what give the wines their stunning complexity. Expert winemakers vary the proportion of grapes used in a wine to balance out the less desirable qualities of each variety.

CABERNET SAUVIGNON

Cabernet Sauvignon is held to be the most noble of the grape varieties. It is the most widely used variety in the 1855 crus classés. Some seventy percent of the vineyards that produce the First Growth crus classés Margaux, Latour, Lafite-Rothschild, and Mouton Rothschild are planted with Cabernet Sauvignon. It is a relatively late-ripening variety, and in order for the grapes to reach their full potential, the vines must be planted on the very best soil that will speed up the ripening process. It gives average-sized but fairly regular yields. The bunches and the grapes themselves are relatively small. It will not produce a very high sugar content, but the ripe grapes are rich in color and tannin. Cabernet Sauvignon produces aromatic wines dominated by dark fruit such as blackcurrants while the wine is still young. After aging, the wine takes on an extraordinary complexity of aromas, notably with notes of cocoa and mint.

MERLOT

Merlot grapes are nearly always used alongside Cabernet Sauvignon. This variety is planted on a third of some vineyards such as Haut-Brion and in a few cases, such as Palmer, half the land is given over to it, the other half being planted with Cabernet Sauvignon. It ripens around two weeks earlier than the Cabernet Sauvignon variety, which means it reaches maturity every year even when the weather is cool, when Cabernet Sauvignon will struggle to ripen. Merlot is better adapted to wetter ground conditions. But to allow it to reach its best, its natural generosity must be curbed. Merlot produces colorful, sugary grapes with full-bodied tannins. When young, the predominant aromas are red and dark fruits, which develop into candied fruit, leather, and fur as the wine matures. Merlot wine tends to age a little faster than Cabernet Sauvignon wine.

CABERNET FRANC

Cabernet Franc is the third most important red grape variety in terms of surface area in the Bordeaux region. It is more at home in the Libernais than the Médoc, although no one has yet quite fathomed why. It ripens later than Merlot, but earlier than Cabernet Sauvignon. Some people find its taste too light, but it is capable of great finesse. Some crus classés have succeeded in producing outstanding Cabernet Francs on very old vines in ideal soil conditions.

PETIT VERDOT

Just a small proportion of the Bordeaux vineyards is planted with Petit Verdot, but this variety plays a key role in some vintages. It is a late-ripening variety, which means the wine it produces varies in quality from year to year depending on the weather. As the signs all indicate that the global climate is getting warmer, we should expect to see more and more Petit Verdot vines being planted in the region in the years to come. It is a difficult, demanding variety that needs to be planted in conditions that will encourage the grapes to ripen as soon as possible, with a moderate amount of watering that must be carefully judged not to deprive the vines of the precious liquid they require. Once these conditions are fulfilled, Petit Verdot gives a very rounded wine that could almost stand on its own without blending.

The Soil

After the climate and the grape variety, the soil is the third factor that goes to make up the terroir. The roots of the vine draw all the water and nutrients the plant needs from the soil. Soil conditions can vary a great deal depending on the texture, gravel and mineral content, the capacity to hold water, and the depth of the soil layer. As Dr. Seguin, a specialist at the Faculty of Oenology at Bordeaux University and an acknowledged expert in soil types, has established, there is no one ideal soil type. The quality of the wine depends on the interplay of a number of factors. Having said that, certain characteristics are indispensable to grow good quality grapes.

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The mineral content of the soil varies greatly from one place to another. The winegrower can add mineral fertilizers as he sees fit to enrich the soil with the nutrients it lacks naturally. As a general rule, the best winegrowing soils are not over-rich in minerals. In the Médoc, the mineral content of the soil is often reduced by the presence of large quantities of flint and gravel which do not feed the soil. No research has yet succeeded in proving the direct influence of any given chemical element on wine quality.

The winegrower may need to water his vines if the soil allows the rainfall to drain away too readily. This is a vital factor in wine quality. The ideal is to reduce the vine's water intake during the summer, halting the growth of the branches and the grapes themselves and producing a high concentration of sugars. However, too little water, and the grapes will simply not ripen fully. This is an extremely rare occurrence in the Bordeaux region, mainly affecting very young vines whose root system is still very shallow in the course of unusually dry summers.

As the Bordeaux climate is rather rainy, the best way of limiting the vines' water intake is to plant them in well-drained soil. The best Médoc soils are perfect, as they have a very high gravel content. Because the rainfall rapidly drains away, the soils warm up easily in the spring sunshine, encouraging the grapes to ripen quickly. This is particularly important in vineyards planted with a late-ripening variety such as Cabernet Sauvignon.

Gravelly soils are common to all the cru classé estates. These soils are warm and help the grapes ripen quickly. The water drains easily from them and they make it possible for the winegrower to control the amount of water taken up by the vines and thus improve the quality of the grapes. The wines grown on gravelly soil are rich in tannins and are best left to age for several years. They often boast exceptional finesse, particularly when Cabernet Sauvignon is the principal grape variety. Some of the finest wines in the 1855 classification, for example Château Latour, have vines that grow on very clayey soil. This type of soil often produces the best grapes, although few winedrinkers associate Médoc wines with clay soil. The real advantage a clay soil offers is to allow the grower to control the wine's water intake, giving powerful wines with full-bodied tannins. All four principal grape varieties can be grown on clay soils.

The Bordeaux region also has some clay-limestone soil, particularly in the Margaux appellation around the village of Saint-Estèphe and in Haut-Brion. Clay-limestone soil is excellent for vines, but it retains water better than gravelly soils, which means the grapes ripen a little later. It is therefore best suited to growing Merlot, producing powerful wines with a relatively high alcohol content that complement wines grown on gravelly soils superbly in blends.

The 1855 crus classés are often grown on sandy or sandy-gravelly soil. Patches of sandy soil mostly lie at the foot of gravel outcrops or on the western fringes of the region, where they can be rich in humus. Vines grown in these soil conditions tend to be vigorous and give an abundant yield. The winegrowers control this vigor by limiting the amount of fertilizer used and sowing grass between the rows of vines to draw off some of the nutrients. This allows them to produce excellent wines, particularly with Merlot grapes. When young, these wines are bursting with fruit notes. Since they age quickly, they are especially suited for use in blends of seconds vins, the second wines that many of the great châteaux produce alongside their principal output.

Each type of soil in the Médoc has its own unique characteristics. The grapes that go into the 1855 crus classés are grown on several different types of soil. After harvesting, the grapes are vinified in different vats according to the type of soil. This means that the same fermentation cellar can produce wines with strikingly different personalities. During the blending process, the winemaker will play to the strengths of each to produce a wine that draws on the best features of each variety. The result is far more subtle and complex than each grape variety could produce on its own. The rest of the harvest generally goes to make the second wine, which can be an excellent way of discovering the crus classés without breaking the bank. The exact blend that goes into a grand cru classé varies from year to year, as the grapes grown on each soil type react differently to the prevailing weather conditions. The diverse range of soil types and the size of the estates are in fact a major asset for the winemakers, giving them a lot of scope to produce the finest blends possible.

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Conclusion

The terroir is a subtle harmony resulting from the effects of the soil, the weather, and the grape variety, skillfully combined by the winemaker. Other parts of the world share conditions and soil types similar to those found in the Bordeaux region. Cabernet Sauvignon grapes, which owe their reputation to the excellence of the 1855 crus classés, are now grown all over the world. But what makes the 1855 grands crus classés so unique is the remarkable harmony of the soil, the climate, and the grape varieties. Cabernet Sauvignon grapes are brought to perfect ripeness by the Bordeaux climate, as long as the soil is warm enough to hasten the process. The well-drained soils draw off the excess rainfall and prevent the vines from taking up too much water, building up sugar levels in the perfectly ripened grapes. But the terroir would be nothing without the expertise of the master winemaker. It is entirely due to the efforts of generations of skilled vintners that this southwestern corner of France has become one of the greatest winegrowing regions in the world.

