

# THE GRAND CRU ATLAS

A Compendium of the World's Greatest Vineyards

*Organised by Grape Variety and Blend*

April 2026

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## Introduction

This document maps the world's most revered vineyard sites to the grape varieties that have made them famous. For each variety or blend, the most notable vineyards are listed alongside their terroir, the key producers who farm them, and a brief description of what makes each site unique. The focus is on vineyards whose names carry the weight of generations — sites where geology, microclimate, and human stewardship have converged to produce wines of transcendent quality.

The selection spans the traditional heartlands of European viticulture and the most compelling New World sites that have earned comparable stature. Within each section, vineyards are grouped by region and ordered roughly by prestige and historical significance. Where a vineyard is a monopole (farmed by a single estate), this is noted.

The atlas covers twenty-two grape varieties and blend categories across approximately 300 sites. Alongside the single-variety chapters, one cross-variety category is included — Volcanic Terroirs — because volcanic soils are unusual enough in the wine world, and sufficiently distinctive in what they contribute to a wine, that the terroir itself is worth treating as a category rather than scattering the sites across their respective grape chapters.

# I. Riesling

No grape variety is more transparent to its site than Riesling. The roll-call of named Riesling vineyards — from the vertiginous slate slopes of the Mosel to the Permian sandstone of Kamptal — constitutes perhaps the most precisely documented terroir hierarchy outside Burgundy. The VDP's Grosse Lage classification and Alsace's Grand Cru system provide formal frameworks, but the true measure is in the glass: Riesling from a great site tastes like no other place on earth.

## Germany & Alsace

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Wehlener Sonnenuhr</b>	Mosel — blue Devonian slate, south-facing, 60%+ gradient	J.J. Prüm, S.A. Prüm, Dr. Loosen	Ethereal delicacy, laser precision, floral lift over wet slate; iconic for Spätlese and Auslese
<b>Scharzhofberg</b>	Saar — grey/red weathered slate, wind-exposed, 190–310m elevation	Egon Müller, Van Volxem, Geltz-Zilliken	Crystalline purity, steely acidity, extraordinary longevity; TBAs command auction records
<b>Bernkasteler Doctor</b>	Mosel — steep slate above Bernkastel, micro-sheltered	Schloss Lieser (Thomas Haag), Thanisch, Lauerburg	Concentration and warmth unusual for the Mosel; historic prestige rivalling top Burgundy prices
<b>Erdener Prälat</b>	Mosel — red slate, tiny south-facing amphitheatre	Dr. Loosen (monopole-like)	Opulent, almost exotic richness; the Mosel's most concentrated single site
<b>Ürziger Würzgarten</b>	Mosel — red volcanic slate, iron-rich	Dr. Loosen, Markus Molitor, Mönchhof	Spicy, exotic character (the name means 'spice garden'); unique among Mosel sites
<b>Brauneberger Juffer Sonnenuhr</b>	Mosel — fine Devonian slate, south-facing, up to 80% grade	Fritz Haag, Schloss Lieser, Max Ferd. Richter	Power and elegance in balance; on international wine lists for over a century
<b>Piesporter Goldtröpfchen</b>	Mosel — slate amphitheatre facing south	Reinhold Haart, St. Urbans-Hof, Julian Haart	Rich, golden-fruited; the Mosel's most generous and approachable Grand Cru
<b>Maximin Grünhäuser Abtsberg</b>	Ruwer — blue slate, sheltered tributary valley	Von Schubert (monopole)	Weightless intensity, extraordinary aromatic complexity; whispered rather than declared
<b>Niederhäuser Hermannshöhle</b>	Nahe — volcanic porphyry/slate, south-facing steep slope	Dönnhoff	Mineral depth, aristocratic structure; arguably the Nahe's single greatest site
<b>Halenberg</b>	Nahe — volcanic soils, steep	Emrich-Schönleber	Monumental power and wet-stone minerality; staggering concentration in top vintages
<b>Felseneck</b>	Nahe — grey slate, steep	Schäfer-Fröhlich	Radically flinty, grapefruit-driven; a site unknown until Tim Fröhlich revealed its potential
<b>Kiedricher Gräfenberg</b>	Rheingau — Phyllite slate, gentle south-facing slope	Robert Weil	Aristocratic elegance; the Rheingau's finest GG and a benchmark for the region's style

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Hochheimer Hölle</b>	Rheingau — loess/clay over limestone, south-facing	Künstler	Unusual power and density for the Rheingau; rich, ripe, built for decades
<b>Rüdesheimer Berg Schlossberg</b>	Rheingau — steep quartzite/slate above the Rhine	Georg Breuer, Leitz	Stony, muscular; the most structured and age-worthy Rheingau wines
<b>Westhofener Morstein</b>	Rheinhessen — clay over limestone (Burgundy-like)	Keller, Wittmann	Textural complexity recalling white Burgundy; layered, saline finish of extraordinary length
<b>Westhofener Brünnenhäuschen</b>	Rheinhessen — limestone/marl	Keller (Abts E)	Keller's rarest bottling now commands prices rivalling Egon Müller
<b>Kastanienbusch</b>	Pfalz — red sandstone/limestone, Birkweiler	Rebholz, Dr. Wehrheim	Enormous power with a wet-stone finish; filigreed or muscular depending on the hand
<b>Forster Kirchenstück</b>	Pfalz — basalt/sandstone/loam, sheltered	Bürklin-Wolf, von Buhl	Historically the Pfalz's most prized parcel; opulent, exotic, full-bodied
<b>Forster Ungeheuer</b>	Pfalz — basalt-scattered sandstone	Bürklin-Wolf, Mosbacher	Deep, powerful, with a distinctive smoky-stony undertone
<b>Clos Sainte Hune (Rosacker)</b>	Alsace — Muschelkalk limestone, Hunawirh	Trimbach (monopole)	Austere, bone-dry, mineral; one of the world's greatest dry whites at any price
<b>Rangen de Thann</b>	Alsace — volcanic tuff, extremely steep south-facing, southernmost GC	Zind-Humbrecht, Schoffit	Volcanic intensity, smoky, almost Etna-like; the most extreme Grand Cru in Alsace
<b>Schlossberg</b>	Alsace — granite, steep terraces, Kaysersberg	Weinbach, Albert Mann	The first classified GC (1975); pure, linear, granite-driven minerality
<b>Schoenenbourg</b>	Alsace — marl/gypsum, Riquewihr	Hugel, Dopff	Famously rich and long-lived, the most opulent of the top Alsace Grands Crus

## Austria

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Ried Heiligenstein</b>	Kamptal — Permian desert sandstone, warm micro-site	Hirsch, Schloss Gobelsburg, Bründlmayer	Exotic spice, unique mineral profile from ancient sandstone; a singular Austrian terroir
<b>Ried Schütt</b>	Wachau — primary rock/gneiss, terraced, south-facing	Emmerich Knoll	Crystalline power, enormous concentration; Knoll's crown jewel
<b>Ried Kellerberg</b>	Wachau — primary rock terraces, steep, Dürnstein	F.X. Pichler	Monumental structure and longevity; the Wachau's most celebrated dry Riesling site

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Ried Achleiten</b>	Wachau — primary rock/gneiss, warm south-facing, Weissenkirchen	Prager, Rudi Pichler	Savoury, herbal edge with enormous depth; among the warmest and most powerful Wachau sites

## II. Chardonnay

Chardonnay's greatness is anchored in the Côte de Beaune, where the limestone slopes of Puligny-Montrachet, Chassagne-Montrachet, Meursault, and Corton have defined the grape's highest expression for centuries. The Grands Crus here are the white wine equivalent of Romanée-Conti and Chambertin. Beyond Burgundy, a handful of sites in California, Argentina, Australia, and South Africa have earned recognition for producing Chardonnay of comparable ambition and terroir transparency.

### Burgundy

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Le Montrachet</b>	Côte de Beaune — mid-slope limestone/marl, Puligny/Chassagne	DRC, Leflaive, Ramonet, Comtes Lafon	The single greatest white wine vineyard on earth: power, complexity, and longevity in one
<b>Chevalier-Montrachet</b>	Côte de Beaune — higher slope, thinner soil, more limestone	Leflaive, Bouchard Père, Michel Niellon	More mineral and tensile than Montrachet; pure, vertical, electrifying acidity
<b>Bâtard-Montrachet</b>	Côte de Beaune — lower slope, deeper clay/marl	Leflaive, Ramonet, Paul Pernot	Richer, more generous than its upslope neighbours; opulent texture, exotic fruit
<b>Corton-Charlemagne</b>	Côte de Beaune — upper slope, limestone/marl, Aloxe-Corton	Coche-Dury, Bonneau du Martray, Roulot	Austere power; needs a decade to unfurl its smoky, mineral, white-flower complexity
<b>Meursault Perrières (1er Cru)</b>	Côte de Beaune — stony limestone, Meursault	Coche-Dury, Comtes Lafon, Roulot	Widely considered Meursault's finest climat; tighter and more mineral than Gévrières
<b>Puligny-Montrachet Les Pucelles (1er Cru)</b>	Côte de Beaune — mid-slope limestone, adjacent to Bienvenues-Bâtard	Leflaive, Sauzet	Silky elegance, citrus blossom purity; the premier cru closest to Grand Cru quality
<b>Chablis Les Clos (Grand Cru)</b>	Chablis — Kimmeridgian marl/limestone, south-facing	Raveneau, Dauvissat, William Fèvre	The most powerful and age-worthy Chablis; steel, oyster shell, extraordinary tension
<b>Chablis Vaudésir (Grand Cru)</b>	Chablis — Kimmeridgian limestone, sheltered amphitheatre	Long-Dépaquit, Dauvissat	The most elegant Chablis Grand Cru; floral, nuanced, with less muscle than Les Clos

### New World

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Marcassin Vineyard</b>	Sonoma Coast — extreme coastal ridge, fog-influenced	Marcassin (Helen Turley)	Mythic California Chardonnay; power and richness balanced by coastal tension
<b>Ritchie Vineyard</b>	Russian River Valley — Goldridge sandy loam	Kistler, Paul Hobbs, Rochioli	A source vineyard shared by elite producers; tropical richness with mineral undertow

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Durell Vineyard</b>	Sonoma — volcanic/clay soils, Carneros-influenced	Kistler, Kutch, Hanzell	Rich, layered, with a distinctive earthy savouriness from volcanic soils
<b>Hudson Vineyard</b>	Carneros — shallow clay over volcanic bedrock	Kistler, Kongsgaard	Intense, concentrated; one of Carneros' oldest and most respected plantings
<b>Bien Nacido Vineyard</b>	Santa Maria Valley — cool maritime, sandy/clay loam	Au Bon Climat, Qupé, Foxen	Benchmark cool-climate California Chardonnay; bright acidity, citrus, and mineral precision
<b>Adrianna Vineyard</b>	Gualtallary, Uco Valley — calcareous alluvial, 1,450m altitude	Catena Zapata (White Bones, White Stones)	Redefining New World Chardonnay: Burgundian precision at extreme altitude with saline minerality
<b>Piccadilly Valley</b>	Adelaide Hills — cool, high altitude, loam over sandstone	Petaluma, Tapanappa, Shaw + Smith	Australia's most Burgundian Chardonnay zone; elegant, restrained, citrus-driven
<b>Upper Hemel-en-Aarde</b>	Walker Bay — clay/shale, maritime-cooled	Ataraxia, Hamilton Russell, Alheit	South Africa's finest Chardonnay terroir: chalky minerality, ocean-influenced freshness

## III. Pinot Noir

Pinot Noir's spiritual home is the Côte de Nuits, where a 20-kilometre strip of limestone slope contains the most expensive and celebrated red wine vineyards on earth. The Grands Crus of Vosne-Romanée, Chambolle-Musigny, and Gevrey-Chambertin are the apex of the variety, but Oregon's Willamette Valley, New Zealand's Central Otago, and pockets of the Sonoma Coast and South Africa's Walker Bay have demonstrated that Pinot Noir can express site with comparable transparency beyond Burgundy.

### Burgundy

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Romanée-Conti</b>	Vosne-Romanée — mid-slope marl/limestone, perfect east exposure	DRC (monopole)	The most expensive vineyard on earth; transcendent perfume, endless complexity, near-immortal
<b>La Tâche</b>	Vosne-Romanée — steep upper slope, more iron-rich clay	DRC (monopole)	More structured and powerful than RC; dark-fruited, spiced, with extraordinary depth
<b>Musigny</b>	Chambolle-Musigny — thin topsoil, Bajocian limestone	De Vogüé, Leroy, Roumier	Ethereal silk and iron fist; the most feminine Grand Cru with phenomenal aromatic lift
<b>Chambertin</b>	Gevrey-Chambertin — marl/limestone, east-facing mid-slope	Rousseau, Leroy, Trapet	Majesty and structure; Napoleon's favourite wine, the most regal Burgundy
<b>Clos de la Roche</b>	Morey-Saint-Denis — limestone/clay, complex multi-parcel GC	Ponsot (Vieilles Vignes), Dujac, Lignier	Wild, mineral power; deeper and more brooding than neighbouring Clos Saint-Denis
<b>Clos Saint-Jacques (1er Cru)</b>	Gevrey-Chambertin — sheltered amphitheatre, limestone	Rousseau, Fourrier, Esmonin	Widely considered Grand Cru quality; the greatest 1er Cru in all Burgundy
<b>Les Amoureuses (1er Cru)</b>	Chambolle-Musigny — thin soil, upper slope adjacent to Musigny	De Vogüé, Roumier, Groffier	Prices and quality rival Grand Cru; silky, perfumed, achingly beautiful
<b>Richebourg</b>	Vosne-Romanée — deep clay/marl, mid to lower slope	DRC, Leroy, Gros, Méo-Camuzet	Opulent, generous, exotic; the most sensual of the Vosne Grands Crus

### New World & Germany

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Dundee Hills (Jory soil sites)</b>	Willamette Valley — volcanic Jory red clay over basalt	Domaine Drouhin, Eyrie, Domaine Serene	Oregon's first and most iconic Pinot Noir zone; red fruit, earth, supple structure
<b>Eola-Amity Hills</b>	Willamette Valley — volcanic/marine sedimentary, Van Duzer wind corridor	Cristom, Evening Land, Bethel Heights	Wind-cooled, firmer acidity; Oregon's most Burgundian sub-AVA

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Ribbon Ridge</b>	Willamette Valley — marine sedimentary, sheltered	Beaux Frères, Patricia Green, Brick House	Compact, finely-grained; wines of unusual silkiness and precision
<b>Block 5, Bannockburn</b>	Central Otago — schist/loess, north-facing terrace	Felton Road (Block 5)	New Zealand's most famous single Pinot block; dark fruit, minerality, Central Otago intensity
<b>Hirsch Vineyard</b>	Sonoma Coast — extreme coastal ridge, fractured sandstone/shale	Hirsch, Littorai, Williams Selyem	True-coast Pinot Noir; savoury, herbal, with bracing acidity and wild-berry character
<b>Pisoni Vineyard</b>	Santa Lucia Highlands — granite/limestone, high-altitude terraces	Pisoni, Roar, Peter Michael	Intense, dark-fruited, muscular; California's most powerful Pinot Noir site
<b>Assmannshäuser Höllenberg</b>	Rheingau — slate, steep south-facing	August Kessler, Staatsweingut Assmannshausen	Germany's most famous Spätburgunder site; ethereal, translucent red fruit over mineral
<b>Hemel-en-Aarde Ridge</b>	Walker Bay — clay/shale, maritime-cooled valley	Hamilton Russell, Bouchard Finlayson, Creation	Africa's premier Pinot Noir terroir: bright cherry, fine tannin, ocean freshness

## IV. Bordeaux Red Blends

Bordeaux's greatness is inseparable from its terroir hierarchy. The Left Bank's deep gravel mounds, sculpted by glacial rivers, provide ideal drainage for Cabernet Sauvignon, while the Right Bank's limestone plateaux and clay soils favour Merlot and Cabernet Franc. The 1855 Classification, the Saint-Émilion rankings, and Pomerol's unofficial hierarchy all attempt to codify what the gravel, clay, and limestone already dictate. The sites listed here represent the geological foundations beneath the most celebrated châteaux.

### Left Bank (Cabernet Sauvignon Dominant)

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Plateau de Pauillac</b>	Haut-Médoc — deep gravel/sand over clay/limestone	Latour, Lafite Rothschild, Mouton Rothschild	The holy trinity of Pauillac: Cabernet Sauvignon at its most noble, structured, and long-lived
<b>Pessac-Léognan graves terraces</b>	Graves — deep Quaternary gravel over limestone/clay	Haut-Brion, La Mission Haut-Brion, Les Carmes Haut-Brion	Warmer microclimate than Médoc; smoky, mineral, tobacco-tinged elegance
<b>Saint-Julien central plateau</b>	Haut-Médoc — Günzian gravel mounds, deep drainage	Léoville Las Cases, Ducru-Beaucaillou, Léoville Barton	Classical Bordeaux harmony; structure and finesse in perfect balance
<b>Margaux plateau</b>	Haut-Médoc — fine gravel/sand, gentle slopes	Château Margaux, Palmer, Rauzan-Ségla	The most perfumed and silky Left Bank wines; floral, violet-scented, lace-textured
<b>Saint-Estèphe clay-gravel heights</b>	Haut-Médoc — clay-rich gravel, cooler microclimate	Cos d'Estournel, Montrose, Calon-Ségur	Firmer, more tannic; structured and earthy wines that reward long cellaring

### Right Bank (Merlot & Cabernet Franc Dominant)

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Saint-Émilion plateau calcaire</b>	Saint-Émilion — limestone plateau with thin clay topsoil	Angélus, Figeac, Pavie, Canon	Merlot/Cabernet Franc on limestone; rich yet lifted, mineral, increasingly prized
<b>Pomerol central plateau</b>	Pomerol — iron-rich clay (crasse de fer) over gravel	Pétrus, Le Pin, Lafleur, L'Église-Clinet	Tiny estates on unique blue clay; voluptuous, exotic Merlot of extraordinary concentration
<b>Saint-Émilion côtes</b>	Saint-Émilion — limestone slopes, south/southeast exposure	Ausone, Bélair-Monange, Canon	Slope-grown Cabernet Franc shines here; tension, minerality, and ethereal perfume

## V. Nebbiolo

Nebbiolo is perhaps the most site-specific of all red grapes. Its greatest expressions come from the Langhe hills of Piemonte, where the Barolo and Barbaresco zones are divided into named crus (Menzioni Geografiche Aggiuntive) whose terroir differences are as pronounced as those between Burgundy's Grands Crus. The distinction between Tortonian (younger, sandier) and Helvetian (older, more compact) marls in Barolo creates two fundamentally different styles of wine, and knowing which commune and cru a Barolo comes from is essential to understanding the wine in the glass.

### Barolo

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Cannubi</b>	Barolo — south-facing, mixed marl/sand/clay, central Barolo commune	Damilano, Marchesi di Barolo, Chiara Boschis	The most historically celebrated Barolo cru; harmonious, perfumed, approachable yet complex
<b>Monfortino (Cascina Francia)</b>	Serralunga d'Alba — compact Helvetian marl, east-facing	Giacomo Conterno (monopole)	Perhaps Italy's single greatest wine; massive structure, decades of ageing, iron-fisted power
<b>Bricco Ambrogio</b>	Roddi — Tortonian marl, high elevation, south-facing	Bruna Grimaldi	Elegant expression from a lesser-known commune; fragrant, fine-grained, increasingly celebrated
<b>Bric dël Fiasc</b>	Castiglione Falletto — Tortonian marl, south-facing amphitheatre	Paolo Scavino	Structured and complex; balances Serralunga power with Castiglione finesse
<b>Gavarini Vigna Chiniera</b>	Serralunga d'Alba — compact marl, steep south-facing	Elio Grasso	Modern yet deeply rooted; concentrated, mineral, with extraordinary depth
<b>Rocche dell'Annunziata</b>	La Morra — calcareous marl, south-southwest exposure	Corino, Roberto Voerzio, Renato Ratti	Elegant La Morra at its finest; floral, silky, with early approachability masking structure
<b>Brunate</b>	La Morra/Barolo — south-facing, transitional soils (sand/clay/marl)	Ceretto, Roberto Voerzio, Marcarini	Straddles two communes; combines La Morra perfume with Barolo structure
<b>Vigna Rionda</b>	Serralunga d'Alba — iron-rich Lequio marl, steep southwest-facing	Massolino, Oddero	The most powerful Serralunga site; tannic, brooding, needs decades to reveal its depths

### Barbaresco & Alto Piemonte

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Pajé</b>	Barbaresco — calcareous marl, east-facing, high elevation	Roagna, Produttori del Barbaresco	Barbaresco's most age-worthy cru; austere, profound, almost Barolo-like intensity
<b>Asili</b>	Barbaresco — calcareous/sandy marl, south-facing amphitheatre	Bruno Giacosa, Produttori del Barbaresco, Ca' del Baio	The quintessential Barbaresco; elegant, perfumed, with exquisite balance

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Rabajà</b>	Barbaresco — calcareous marl, southwest-facing	Bruno Giacosa, Produttori del Barbaresco	Power and concentration unusual for Barbaresco; deep, structured, rich
<b>Vigna Molsino</b>	Gattinara — volcanic porphyry/granite, Alto Piemonte	Nervi-Conterno	Northern Piemonte's finest Nebbiolo; leaner, more austere, with alpine minerality
<b>Valmaggione</b>	Roero — marine sand over clay	Matteo Correggia, Malvirà	Sand-driven Nebbiolo; translucent, aromatic, early-drinking but with real depth

## VI. Sangiovese

Sangiovese is Tuscany's soul, and its greatest sites are divided between two distinct worlds: the austere, long-lived Brunello di Montalcino and the more diverse, increasingly ambitious Chianti Classico. The Gran Selezione category in Chianti Classico has formalised the idea of single-vineyard Sangiovese, while Montalcino's producers have long argued about the superiority of northern versus southern exposures. The Super Tuscan movement, which blended Sangiovese with international varieties or bottled 100% varietal wines outside DOCG rules, has produced some of Italy's most celebrated wines.

### Brunello di Montalcino & Chianti Classico

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Montosoli</b>	Montalcino north — galestro/alberese, 350m, north-facing	Biondi-Santi (Il Greppo), Altesino	Montalcino's most celebrated single vineyard; austere, mineral, built for decades
<b>Castelnuovo dell'Abate (southern slopes)</b>	Montalcino south — clay/galestro, warmer, lower altitude	Poggio di Sotto, Col d'Orcia, Pian dell'Orle	Richer, more generous Brunello; ripe fruit, Mediterranean warmth, earlier accessibility
<b>Vigneto Bellavista</b>	Gaiole in Chianti — galestro/limestone, 400m, south-facing	Castello di Ama	Ethereal elegance; Chianti Classico at its most refined and age-worthy
<b>Rancia</b>	Panzano in Chianti — galestro/alberese, Conca d'Oro amphitheatre	Felsina	Dense, structured Sangiovese from the 'golden bowl'; one of the greatest cru bottlings
<b>Vigna del Sorbo</b>	Panzano in Chianti — galestro, 350–400m elevation	Fontodi	Powerful yet balanced; benchmark Gran Selezione from an outstanding producer
<b>Coltassala</b>	Castellina in Chianti — limestone/clay, 350m	Castello di Volpaia	Mineral, savoury Chianti Classico with real structure and ageing potential
<b>Tignanello (estate vineyard)</b>	Chianti Classico — alberese/galestro, 350–400m	Antinori	The wine that launched the Super Tuscan revolution: Sangiovese with Cabernet in a Tuscan frame
<b>Flaccianello della Pieve (estate)</b>	Panzano in Chianti — galestro/alberese	Fontodi	100% Sangiovese masterwork; dark, concentrated, among Italy's finest expressions of the grape
<b>Il Greppo (Biondi-Santi estate)</b>	Montalcino northeast — galestro/marl, 500m, north-facing	Biondi-Santi	The birthplace of Brunello; austere, aristocratic wines that age for half a century

## VII. Malbec

Malbec's transformation from a blending component in Cahors and Bordeaux to a world-class varietal wine is one of the great stories of modern viticulture. Argentina's Mendoza province, and particularly the high-altitude Uco Valley, has revealed that Malbec is capable of terroir expression as nuanced as any European grape — provided it is grown at elevation, on the right soils, with the right ambition. The emerging sub-regional hierarchy of the Uco Valley (Gualtallary, Altamira, Los Chacayes) is one of the most exciting developments in contemporary wine.

### Argentina & France

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Gualtallary</b>	Uco Valley — calcareous alluvial, 1,400–1,500m altitude	Catena Zapata, Zuccardi, Andeluna	Extreme altitude delivers tension, mineral precision, and floral lift rare in Malbec
<b>Altamira</b>	Uco Valley — alluvial/limestone, 1,050–1,100m	Achaval-Ferrer, Altos Las Hormigas, Terrazas	River-stone soils; structured, savoury Malbec with fine tannins and real ageing potential
<b>Los Chacayes</b>	Uco Valley — gravelly alluvial fan, 1,100–1,300m	Piedra Negra, Domaine Bousquet, Passionate Wines	Cooler microclimate; elegant, restrained, with a distinctly mineral, almost Bordelais character
<b>Vista Flores</b>	Uco Valley — sandy/gravelly alluvial, 950–1,100m	Salentein, Diamandes, Sopenia	A transitional zone; richer than Gualtallary but with good freshness and structure
<b>Agrelo</b>	Luján de Cuyo — alluvial gravel/sand, 950m	Luigi Bosca, Norton, Catena (Lunlunta)	Traditional Mendoza Malbec heartland; generous, dark-fruited, plush, approachable
<b>Las Compuertas</b>	Luján de Cuyo — old alluvial terraces, 980m, some of Mendoza's oldest vines	Pulenta Estate, Terrazas, Kaiken	Historic first-planting sites; concentrated old-vine Malbec with depth and complexity
<b>La Consulta</b>	Uco Valley — alluvial/sand, 950–1,100m	Durigutti, Passionate Wines, Matervini	Warm days, cool nights; balances concentration and freshness with a distinctive spice character
<b>Cahors (Le Clos)</b>	Cahors, France — limestone plateau (causse), iron-rich clay	Clos Triguédina, Ch. Lagrèzette, Ch. du Cèdre	Malbec's ancestral home; darker, more tannic, with earthy iron-and-truffle complexity

## VIII. Syrah / Shiraz

Syrah's duality — cool-climate elegance versus warm-climate power — makes it one of the most versatile and exciting grapes in the world. Its ancestral home is the Northern Rhône, where the granite and schist hillsides of Côte-Rôtie, Hermitage, and Cornas produce wines of profound complexity. Australia's Barossa Valley old vines and South Africa's Swartland represent the grape's other great poles, while Washington State's volcanic terroirs have emerged as a compelling New World frontier.

### Northern Rhône & Beyond

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>La Turque / La Mouline / La Landonne</b>	Côte-Rôtie — schist and granite/gneiss, vertiginous slopes	Guigal (La La La's)	The most famous trio in Rhône wine: La Mouline = silk, La Landonne = power, La Turque = both
<b>Côte Brune / Côte Blonde</b>	Côte-Rôtie — dark schist/iron (Brune) vs lighter gneiss/mica (Blonde)	Ogier (La Belle Hélène), Jamet, Rostaing	The original hillsides; Brune gives structure and darkness, Blonde gives perfume and lift
<b>L'Hermitage (Le Méal, Les Bessards, L'Érmité)</b>	Hermitage — granite (Bessards), loess (Méal), granite terrace (Ermité)	Chave, Chapoutier, Jaboulet	Hermitage's holy parcels; Bessards = tannic granite power, Méal = generous warmth, Ermité = ethereal
<b>Cornas (Les Chaillots, La Geynale)</b>	Cornas — decomposed granite, south-facing amphitheatre	Thierry Allemand, Auguste Clape, Lionnet	The most raw and primal Northern Rhône; dark, dense, untamed, thrilling with age
<b>Châteauneuf-du-Pape plateau galets</b>	Châteauneuf — galets roulés (large, rounded stones) over red clay	Rayas, Clos des Papes, Beaucastel	Iconic heat-retaining stones; grenache-dominant but Syrah adds spine and dark fruit
<b>The Rocks District</b>	Walla Walla Valley — fractured basalt cobblestones, wind-scoured	K Vintners (Royal City), Cayuse, Reynvaan	Volcanic cobblestones produce intensely mineral, savoury, powerful cool-climate Syrah
<b>Barossa Valley old vine sites</b>	Barossa — deep sandy/clay loam over ironstone, warm continental	Penfolds, Henschke (Hill of Grace), Torbreck	Pre-phyloxera vines up to 170 years old; opulent, spicy, concentrated Shiraz of immense depth
<b>Eden Valley (high altitude)</b>	Eden Valley — sandy loam over schist, 400–500m elevation	Henschke, Yalumba (Octavius old vines), Pewsey Vale	Cooler, more peppery and restrained than Barossa floor; elegant Shiraz with real tension
<b>McLaren Vale</b>	McLaren Vale — diverse: sand, clay, ironstone, limestone	d'Arenberg, Clarendon Hills, Yangarra	Maritime influence gives freshness to rich, dark Shiraz; chocolate, earth, and olive tapenade
<b>Swartland granite terroirs</b>	Swartland — decomposed granite hillsides, dryland farmed	Mullineux, Porseleinberg, Sadie Family (Columella)	South Africa's most exciting Syrah terroir; savoury, peppery, with granite-driven minerality
<b>Red Mountain AVA</b>	Washington State — windblown loess/sand over basalt, arid, warm	Quilceda Creek, Col Sélare, Hedges	The warmest Washington AVA; powerful, dark-fruited, with firm tannic structure

## IX. Cabernet Franc

Cabernet Franc is Bordeaux's secret weapon and the Loire Valley's noblest red grape. In the tuffeau limestone caves and slopes of Chinon, Bourgueil, and Saumur-Champigny, it produces wines of extraordinary purity — lighter in colour than Cabernet Sauvignon but often more aromatically complex, with signature notes of violets, graphite, crushed herbs, and wet stone. On the Right Bank of Bordeaux, it plays a crucial role alongside Merlot at estates like Cheval Blanc and Lafleur. Increasingly, ambitious New World producers in Argentina, Friuli, and even the Finger Lakes are demonstrating that Cab Franc can express terroir with Pinot Noir-like transparency.

### Loire Valley, Bordeaux Right Bank & New World

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Clos Rougeard (Le Bourg / Les Poyeux)</b>	Saumur-Champigny — tuffeau limestone, south-facing, Loire Valley	Clos Rougeard (Foucault family)	The most legendary Loire Cab Franc estate; Le Bourg is Burgundian in complexity, silky, mineral, and immortal
<b>L'Huisserie</b>	Chinon — limestone/clay slopes, south-facing, above the Vienne	Philippe Alliet	One of Chinon's finest lieux-dits; structured, savoury, with herb-tinged dark fruit and chalky minerality
<b>Clos de la Dioterie</b>	Chinon — old-vine tuffeau limestone slopes	Charles Joguet	Joguet's monopole of pre-phylloxera vines; profound, age-worthy, benchmark old-vine Chinon
<b>Les Picasses</b>	Chinon — clay-limestone coteaux, south-facing	Olga Raffault, Charles Joguet	Dense and structured; one of the most tannic and long-lived Chinon terroirs
<b>Clos de la Roche (Bourgueil)</b>	Bourgueil — tuffeau limestone/clay over tufa caves	Yannick Amirault, Pierre Breton	Bourgueil's most celebrated site; darker, firmer than Chinon, with iron and graphite notes
<b>Brézé</b>	Saumur — deep tuffeau limestone, cooler microclimate	Château de Brézé, Arnaud Lambert	Emerging as one of the Loire's most exciting terroirs; chalky purity and precision
<b>Saint-Émilion limestone plateau (Cab Franc sites)</b>	Saint-Émilion — limestone/clay, thin topsoil	Cheval Blanc, Figeac, Angélus	Cab Franc reaches its Bordelais apex here; floral, spiced, violet-perfumed, with silky texture
<b>Pomerol clay terroirs (Cab Franc parcels)</b>	Pomerol — iron-rich clay over gravel	Lafleur, Vieux Château Certan, La Conseillante	Cab Franc as co-lead with Merlot; adds aromatic lift, freshness, and mineral complexity
<b>Gualtallary (Cab Franc plantings)</b>	Uco Valley, Argentina — calcareous alluvial, 1,400m+	Gran Enemigo (Vigil), Zuccardi	High-altitude Cab Franc of startling precision; floral, herbal, with Andean mineral tension
<b>Friuli Colli Orientali</b>	Friuli — Ponca (layered marl/sandstone), hilly, northeast Italy	Moschioni, Miani, Le Due Terre	Italy's most serious Cab Franc terroir; savoury, herbal, with distinctive ponca-driven minerality
<b>Finger Lakes (steep shale slopes)</b>	Finger Lakes, New York — Devonian shale/slate, lake-moderated	Hermann J. Wiemer, Ravines, Heart & Hands	Emerging cool-climate Cab Franc; bright acidity, herbal lift, surprisingly age-worthy

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Red Mountain (Cab Franc blocks)</b>	Washington State — loess/basalt, arid, warm	Quilceda Creek, Andrew Will, Fidélitas	Powerful New World Cab Franc; dark fruit, firm structure, basalt-driven mineral depth

## X. Rhône Red Blends (GSM)

The Grenache-Syrah-Mourvèdre blend — universally known as GSM — is the Southern Rhône's defining expression, anchored by the galets roulés of Châteauneuf-du-Pape and the limestone slopes of Gigondas. Grenache provides warmth, generosity, and red-fruited sweetness; Syrah adds colour, structure, and dark-fruited complexity; Mourvèdre contributes tannin, earthiness, and ageing potential. Beyond France, the blend has found natural homes in Priorat's llicorella schist, Australia's old-vine Barossa and McLaren Vale, South Africa's Swartland, and California's Paso Robles.

### Southern Rhône

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Châteauneuf-du-Pape – La Crau plateau</b>	Southern Rhône — galets roulés over red clay/sand, high plateau	Vieux Télégraphe (monopole of La Crau), Henri Bonneau	The most famous single lieu-dit in Châteauneuf; deep, powerful, galets-driven warmth and concentration
<b>Châteauneuf-du-Pape – Rayas (sandy terroir)</b>	Southern Rhône — pure sand over clay, sheltered, cool micro-site	Château Rayas (monopole)	The great contrarian; pure Grenache from sand producing ethereal, Burgundian transparency
<b>Châteauneuf-du-Pape – plateau galets (classic)</b>	Southern Rhône — galets roulés over Miocene red clay	Clos des Papes, Beaucastel, Colombis (Ferrando)	The iconic terroir of the appellation; heat-retaining stones drive concentration and spice
<b>Gigondas – Dentelles de Montmirail slopes</b>	Southern Rhône — limestone scree from Dentelles, clay/sand lower	Santa Duc, Château de Saint-Cosme, Domaine Les Pallières	Gigondas at its finest; Grenache-dominant, with Dentelles limestone adding lift and freshness
<b>Vacqueyras – garrigues terraces</b>	Southern Rhône — gravel/clay terraces with garrigue-covered slopes	Château des Tours, Le Sang des Cailloux, Montirius	Rustic power; warmer and more earthy than Gigondas, with wild herb and dark fruit intensity
<b>Rasteau – clay-limestone slopes</b>	Southern Rhône — blue clay/marl over limestone, north-facing slopes	Domaine Gourt de Mautens, Trapadis	Dense, dark, powerful; Grenache thrives on clay, producing wines of surprising structure

### New World GSM

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Priorat – Gratallops (llicorella terraces)</b>	Priorat, Spain — llicorella (slate/schist), steep terraced hillsides	Álvaro Palacios (L'Ermita, Finca Dofi), Clos Mogador	Spain's most prestigious Grenache terroir: extreme slopes, mineral intensity, dark-fruited power
<b>Priorat – Porrera old vines</b>	Priorat — llicorella, some of the oldest Garnacha/Cariñena vines	Cims de Porrera, Mas d'en Gil	Ancient vines on schist; concentrated, savoury, with remarkable depth from low-yielding old plants
<b>Barossa Valley old-vine GSM sites</b>	Barossa — sandy loam/clay over ironstone, warm continental	Torbreck (Run Rig, The Struie), Turkey Flat, Yalumba	Australia's greatest GSM tradition; ancient Grenache and Mourvèdre vines give depth and complexity

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>McLaren Vale GSM terroirs</b>	McLaren Vale — sand/clay/ironstone, maritime-moderated	d'Arenberg (The Dead Arm), Yangarra, Chapel Hill	Rich, generous GSM; maritime influence adds freshness to warm-climate Grenache and Shiraz
<b>Swartland dryland bush vines</b>	Swartland, South Africa — decomposed granite, unirrigated	Mullineux, Sadie Family, Badenhorst	Rhône varieties on granite; peppery, wild-herbed, with distinctive South African garrigue character
<b>Paso Robles (Willow Creek, Adelaida)</b>	Paso Robles, California — calcareous/siliceous, mountainous	Tablas Creek, Saxum, Epoch	California's Rhône heartland; Tablas Creek (Beaucastel partnership) anchors the region's credibility

## XI. Cabernet Sauvignon (Varietal)

Beyond its role in Bordeaux blends, Cabernet Sauvignon stands alone as a varietal wine of immense power and longevity, particularly in California's Napa Valley, Chile's Alto Maipo, Australia's Coonawarra and Margaret River, and Washington State. Napa's sub-appellations — each with distinct soils and microclimates — have created a terroir hierarchy as finely graded as any in the Old World. The mountain districts (Howell Mountain, Spring Mountain, Mount Veeder) versus the valley floor benchlands (Oakville, Rutherford, Stags Leap) offer fundamentally different expressions of the same grape.

### Napa Valley, Chile, Australia & Washington

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Oakville benchland</b>	Napa Valley — alluvial gravels, warm days, cool bay influence	Opus One, Robert Mondavi (To Kalon), Harlan, Screaming Eagle	California's most storied Cabernet terroir; To Kalon is the single most famous American vineyard
<b>Rutherford Bench</b>	Napa Valley — alluvial fan gravels, well-drained	Caymus, Inglenook, Staglin, Quintessa	The source of 'Rutherford dust' — a distinctive earthy, herbal quality unique to these sites
<b>Howell Mountain</b>	Napa Valley — volcanic ash/tufa, 425–670m elevation, above fog line	Dunn, FUTO, O'Shaughnessy, La Jota	Mountain Cabernet: intense colour, firm tannins, iron-like minerality, formidable ageing potential
<b>Spring Mountain</b>	Napa Valley — volcanic/sedimentary, steep, above fog	Smith-Madrone, Pride, Barnett	Similar mountain intensity to Howell; slightly more elegance and floral lift
<b>Mount Veeder</b>	Napa Valley — fractured sandstone/shale, 120–720m	Hess Collection, Mayacamas	The most austere Napa mountain district; lean, tannic, mineral, demands patience
<b>Stags Leap District</b>	Napa Valley — alluvial/volcanic, sheltered palisade cliffs	Stag's Leap Wine Cellars, Shafer, Clos du Val	Softer, more refined Napa Cabernet; iron fist in velvet glove; site of the 1976 Judgment of Paris
<b>Alto Maipo (Puente Alto)</b>	Maipo Valley — alluvial gravel/stone, Andean-influenced, 650m	Concha y Toro (Don Melchor), Viñedo Chadwick, Almaviva	South America's most prestigious Cabernet terroir; Bordelais structure with Andean mineral intensity
<b>Red Mountain</b>	Columbia Valley — loess/sand over basalt, hot, arid, wind-exposed	Quilceda Creek, Col Sélare, Hedges	Exceptionally dark, concentrated Cabernet; heat gives ripeness, basalt gives mineral backbone
<b>Coonawarra terra rossa</b>	Coonawarra — thin red clay (terra rossa) over limestone	Wynns, Hollick, Parker Estate	Australia's most celebrated Cabernet zone; eucalyptus-tinged, structured, distinctly cool-climate
<b>Margaret River</b>	Margaret River — laterite/gravel over granite, maritime-moderated	Cullen, Vasse Felix, Moss Wood	Australia's most Bordelais region; structured, elegant Cabernet blends with real restraint
<b>Eisele Vineyard</b>	Napa Valley (Calistoga) — volcanic/alluvial, warm, sheltered	Eisele Vineyard Estate (formerly Araujo)	One of Napa's greatest single vineyards; also a source of extraordinary Syrah

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Monte Bello Ridge</b>	Santa Cruz Mountains — limestone/greenstone, 750m elevation	Ridge Vineyards (Monte Bello)	Perhaps California's most Bordelais terroir; limestone at elevation producing wines of 50-year ageing potential

## XII. Grenache / Garnacha

Grenache is the Mediterranean's great grape — generous, warm-hearted, and capable of extraordinary complexity when grown on the right soils at the right yields. While it appears as a blending partner in the GSM section of this Atlas, Grenache also stands brilliantly alone: as the ethereal, sand-grown pure varietal of Château Rayas, the slate-driven Garnacha of Priorat, the ancient Cannonau of Sardinia's mountains, the granite-grown revelation of Sierra de Gredos, and the pre-phylloxera old-vine treasures of the Barossa. No grape covers a wider spectrum from rustic power to Burgundian transparency.

### Southern Rhône, Spain, Sardinia & Australia

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Château Rayas (sandy terroir)</b>	Châteauneuf-du-Pape — pure sand over clay, sheltered, cool micro-site	Château Rayas (monopole)	The most Burgundian Grenache on earth; pure sand produces ethereal transparency and haunting fragrance
<b>Châteauneuf – old-vine plateau galets</b>	Châteauneuf — galets roulés over red clay, 80–100+ year vines	Henri Bonneau (Réserve des Célestins), Clos des Papes	Ancient vines on iconic stones; the deepest, most concentrated expression of Southern Rhône Grenache
<b>Gigondas – Dentelles heights</b>	Gigondas — limestone scree from Dentelles de Montmirail, 300–400m	Santa Duc, Saint-Cosme, Les Pallières	High-altitude Grenache with limestone lift; more tensile and mineral than the valley floor
<b>Gratallops (Priorat)</b>	Priorat — llicorella (slate/schist), steep terraces, 200–600m	Álvaro Palacios (L'Ermita, Finca Dofi), Clos Mogador, Clos Erasmus	Spain's most prestigious Garnacha; extreme slopes, mineral intensity, dark power from ancient schist
<b>Porrera old vines (Priorat)</b>	Priorat — llicorella, centenarian Garnacha/Cariñena vines	Cims de Porrera, Mas d'en Gil, Vall Llach	Some of Priorat's oldest plantings; concentrated, savoury, profoundly deep, low-yielding vines
<b>Campo de Borja old vines</b>	Aragon — limestone/clay, high plateau, 500–700m, continental	Alto Moncayo, Bodegas Frontonio (El Jardín de las Iguales)	High-altitude old-vine Garnacha; extraordinary value, dark-fruited, with surprising mineral precision
<b>Cebreros / Sierra de Gredos</b>	Central Spain — granite sand, 800–1,200m altitude, extreme continental	Comando G (La Bruja de Rozas, Rumbo al Norte), Daniel Landi	Spain's most exciting rediscovery; translucent, Burgundian Garnacha from granite at extreme altitude
<b>Mamoiada / Barbagia old vines</b>	Sardinia — granite/schist, mountainous interior, 500–700m	Giuseppe Ferrara (Ferrara Vini), Ferrandes, Catinari	Wild, ancient Cannonau from Sardinia's mountains; herbal, savoury, untamed, with garrigue intensity
<b>Maury (schist terroirs)</b>	Roussillon — black schist, steep hillsides, extreme heat	Mas Amiel, Domaine de la Préceptorie, Domaine des Soulanes	Grenache on schist in extreme heat; powerful dry reds alongside legendary Vins Doux Naturels
<b>Barossa Valley old-vine Grenache</b>	Barossa — sandy loam over clay/ironstone, pre-phylloxera vines	Turkey Flat, Torbreck, Yangarra, Cirillo	Some of the world's oldest Grenache vines (140+ years); generous, spiced, extraordinarily complex

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>McLaren Vale bush vine Grenache</b>	McLaren Vale — sand/clay, maritime-moderated	d'Arenberg, Bekkers, S.C. Pannell	Maritime-influenced old-vine Grenache; fragrant, medium-bodied, with red-fruited charm and savour

## XIII. Tempranillo

Tempranillo is Spain's noble grape, the backbone of Rioja and Ribera del Duero, and the foundation of the country's greatest red wines. In Rioja, it produces wines of elegant structure and remarkable longevity, shaped by decades of oak ageing in a tradition unlike any other wine region. In Ribera del Duero, grown as Tinto Fino at 800 metres on limestone plateaux, it becomes darker, more powerful, and more tannic. In Toro, on ungrafted pre-phylloxera vines in deep sand, it reaches its most primal and concentrated expression. The inclusion of Bierzo's Mencía — a close genetic relative — acknowledges one of Spain's most exciting terroir-driven rediscoveries.

### Rioja, Ribera del Duero, Toro & Bierzo

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Rioja Alta – San Vicente / Labastida slopes</b>	Rioja Alta — calcareous clay, 500–600m, south-facing	Sierra Cantabria, Remelluri, Bodegas Roda	The heartland of classical Rioja: elegance, red fruit, oak-spice integration, and remarkable longevity
<b>Rioja Alta – Villalba / Cenicero terraces</b>	Rioja Alta — alluvial/calcareous, river terraces	La Rioja Alta, Muga, López de Heredia	Traditional Rioja at its most refined; extended oak ageing, savoury, ethereal with decades of age
<b>Rioja Alavesa – Laguardia slopes</b>	Rioja Alavesa — calcareous clay, sheltered by Sierra Cantabria	Contador (Benjamin Romeo), Artádi (Viña El Pisón), CVNE (Contino)	Warmer, richer than Alta; single-vineyard Tempranillo of extraordinary concentration
<b>Rioja Alavesa – Samaniego</b>	Rioja Alavesa — limestone/clay, cooler micro-climate	Bodegas y Viñedos Artuke, Abel Mendoza	Cooler Alavesa; fresher, more mineral Tempranillo with Atlantic influence
<b>Ribera del Duero – Pesquera / Roa plateau</b>	Ribera del Duero — limestone/clay, 800–850m, extreme continental	Vega Sicilia (Único), Alejandro Fernández (Pesquera), Flor de Pingus	Spain's most prestigious red wine zone; powerful Tinto Fino (Tempranillo) with enormous structure
<b>Ribera del Duero – Anguix / Moradillo old vines</b>	Ribera del Duero — sand/chalk, river valley, centenarian vines	Dominio de Pingus, Clos Mogador project	Old-vine plots yielding concentrated, complex wines; Pingus put Ribera on the world stage
<b>Ribera del Duero – Peñafiel terraces</b>	Ribera del Duero — chalky slopes, 750–900m, south-facing	Protos, Emilio Moro, Pago de los Capellanes	Classic Ribera structure; firm tannins, dark fruit, mineral backbone from chalky soils
<b>Toro – old-vine sandy terraces</b>	Toro — deep sand over clay, 650–750m, extreme continental	Numanthia (Termes, Termanthia), Teso La Monja, Pintia (Vega Sicilia)	Pre-phylloxera Tinta de Toro on ungrafted vines; massive, concentrated, wild, untamed
<b>Bierzo (Mencía, related to Tempranillo family)</b>	Bierzo — slate/quartz, steep hillsides, Atlantic/Continental transition	Descendientes de J. Palacios (Corullón, Las Lamas), Raúl Pérez	Not pure Tempranillo but Mencía; translucent, mineral, Burgundian — Spain's most exciting rediscovery

## XIV. Chenin Blanc

Chenin Blanc is one of the world's most versatile and age-worthy white grapes, capable of producing everything from austere, bone-dry Savennieres to lusciously sweet Quarts de Chaume, from sparkling Crémant de Loire to South Africa's finest old-vine whites. Its spiritual home is the Loire Valley, where tuffeau limestone caves and schist slopes have nurtured it for centuries. South Africa's Chenin renaissance — built on old bush vines planted decades ago for brandy production — has revealed a second great terroir for the grape, with Swartland, Stellenbosch, and the remote Citrusdal Mountain producing wines of startling quality and individuality.

### Loire Valley & South Africa

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Savennières – Coulée de Serrant</b>	Savennieres — schist/volcanic, steep south-facing above the Loire	Nicolas Joly (monopole)	The most famous biodynamic vineyard in France; powerful, austere dry Chenin of extraordinary complexity
<b>Savennières – Roche aux Moines</b>	Savennieres — schist/sandstone, south-facing slopes	Nicolas Joly, Domaine aux Moines	Sister site to Coulée de Serrant; slightly more approachable but equally mineral and age-worthy
<b>Vouvray – Le Haut-Lieu / Le Mont</b>	Vouvray — tuffeau limestone/clay, south-facing above the Loire	Domaine Huet (Le Haut-Lieu, Le Mont, Clos du Bourg)	The benchmark for Vouvray; Huet's three monopoles produce the full spectrum from sec to moelleux
<b>Vouvray – Clos du Bourg</b>	Vouvray — silex/tuffeau, sheltered, south-facing	Domaine Huet (monopole)	Huet's most structured vineyard; concentrated, mineral, extraordinary longevity in all styles
<b>Montlouis-sur-Loire – Les Choisilles</b>	Montlouis — tuffeau/silex, south-facing, Loire-side	François Chidaine, Jacky Blot (Domaine de la Taille aux Loups)	Montlouis's finest terroir; more mineral and tensile than Vouvray, increasingly recognised
<b>Quarts de Chaume</b>	Layon — schist/volcanic, steep south-facing amphitheatre, botrytis-prone	Domaine des Baumard, Château Pierre-Bise	France's greatest sweet Chenin; noble rot concentration with razor acidity and decades of life
<b>Bonnezeaux</b>	Layon — schist/volcanic, south-facing slopes, botrytis	Château de Fesles, Domaine des Petits Quarts	Rich, honeyed, powerful; the more generous counterpart to Quarts de Chaume
<b>Jasnières</b>	Loir Valley — tuffeau/silex/clay, north of Tours, marginal climate	Domaine de Belévière, Domaine de la Charrière	The most northerly and austere Loire Chenin; laser-like acidity, steel, extraordinary tension
<b>Swartland old-vine Chenin Blanc</b>	Swartland — decomposed granite, unirrigated bush vines, 30–60+ years	Mullineux, Sadie Family (Palladius), Badenhorst	South Africa's Chenin renaissance: old bush vines on granite produce wines rivalling the Loire's best
<b>Stellenbosch Mountain Chenin</b>	Stellenbosch — decomposed granite/sandstone, mountain slopes	Ken Forrester (FMC), DeMorgenon	Higher-altitude Chenin with more structure and concentration than Swartland; rich, textured, age-worthy

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Franschhoek old vines</b>	Franschhoek — alluvial/granite, sheltered valley	Alheit Vineyards (Cartology, Fire by Night), Boschendal	Alheit has revealed single-vineyard Chenin of remarkable site-specificity across the Cape
<b>Citrusdal Mountain</b>	Olifants River — sandstone/shale, high altitude, extreme dry-farmed	Alheit Vineyards (Magnetic North), David & Nadia	Remote, wild, high-altitude Chenin; South Africa's most extreme terroir-driven white wines

## XV. Grüner Veltliner

Grüner Veltliner is Austria's signature grape and its most widely planted variety, ranging from simple, peppery tavern wines to profoundly complex, age-worthy single-vineyard bottlings that rival the finest white Burgundy. The Wachau's terraced primary-rock slopes produce the most powerful and concentrated expressions, while the Kamptal's loess and primary rock terroirs deliver racy, mineral-driven wines of extraordinary precision. The Wagram's deep loess and the Weinviertel's limestone soils offer yet further terroir diversity within a single variety. At its best, Grüner Veltliner combines white pepper spice, herbal complexity, and a savoury mineral depth that is entirely its own.

### Wachau, Kamptal, Kremstal & Beyond

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Ried Schütt</b>	Wachau — primary rock/gneiss, terraced, south-facing, Dürnstein	Emmerich Knoll	One of the Wachau's top sites for both Riesling and GV; crystalline power from ancient rock
<b>Ried Kellerberg</b>	Wachau — primary rock terraces, steep, Dürnstein	F.X. Pichler	Monumental GV alongside world-class Riesling; the Wachau's most celebrated terroir
<b>Ried Achleiten</b>	Wachau — primary rock/gneiss, warm south-facing, Weissenkirchen	Prager, Rudi Pichler, Alzinger	Savoury, herbal, powerful; one of the warmest and most expressive Wachau sites
<b>Ried Loibenberg</b>	Wachau — primary rock/loess, terraced, south-facing, Loiben	Emmerich Knoll, Leo Alzinger	Rich, generous, with distinctive spice; one of the most recognisable Wachau terroirs
<b>Ried Singerriedel</b>	Wachau — primary rock, extremely steep, south-facing, Spitz	Franz Hirtzberger (monopole)	Hirtzberger's crown jewel; the steepest terraces in the Wachau, producing GV of immense concentration
<b>Ried Honivogl</b>	Wachau — gneiss/amphibolite, terraced, Spitz	Franz Hirtzberger	Adjacent to Singerriedel; slightly more generous and approachable but equally site-expressive
<b>Ried Heiligenstein (GV)</b>	Kamptal — Permian desert sandstone, warm micro-site, 250–400m	Hirsch, Schloss Gobelsburg, Bründlmayer	Primarily famous for Riesling, but also produces GV of exotic spice and mineral complexity
<b>Ried Lamm</b>	Kamptal — loess over primary rock, south-facing, Kammern	Bründlmayer	Bründlmayer's top GV site; powerful, textured, with a distinctive savoury-spice profile
<b>Ried Grub</b>	Kamptal — loess/primary rock, 350m, south-facing	Schloss Gobelsburg, Hirsch	Classic Kamptal terroir; racy, peppery, with white pepper and herb-garden character
<b>Ried Pellingen</b>	Kremstal — primary rock/gneiss, terraced, south-facing	Nigl	Martin Nigl's flagship site; precise, mineral, with a citrus-and-herb purity

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Ried Mächtiger</b>	Weinviertel — loess/limestone, rolling hills	Setzer, Pfaffl	The Weinviertel's most serious terroir; shows that Austria's largest region can produce GV of real depth
<b>Ried Rosenberg</b>	Wagram — loess terraces, south-facing	Bernhard Ott	Ott's flagship; the Wagram's finest GV site, with characteristic loess-driven creaminess and spice

## XVI. Gamay

Gamay's ten Beaujolais crus constitute one of the most precisely defined and geologically diverse terroir hierarchies in France. Each cru sits on a distinct combination of granite, schist, volcanic rock, or sand, producing Gamay of markedly different character — from the ethereal florality of Fleurie to the structured, age-worthy power of Moulin-à-Vent, from the volcanic mineral intensity of Côte de Brouilly to the wild, primal energy of Morgon's Côte du Py. The Cru Beaujolais renaissance, led by natural wine pioneers like Marcel Lapiere and Jean Foillard, has restored these wines to their rightful place among France's great terroir expressions. Beyond Beaujolais, Gamay d'Auvergne on volcanic soils represents an exciting frontier.

### Beaujolais Crus & Beyond

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Morgon – Côte du Py</b>	Morgon — decomposed volcanic schist ('rotten rock'), south-facing hill	Marcel Lapiere, Jean Foillard, Domaine Jean-Marc Burgaud	The most famous Beaujolais lieu-dit; volcanic soils give structure and ageability unusual for Gamay
<b>Moulin-à-Vent – Les Thorins / Champ de Cour</b>	Moulin-à-Vent — pink granite/manganese, south-facing slopes	Château du Moulin-à-Vent, Thibault Liger-Belair, Labruyère	The most Burgundian Beaujolais cru; tannic, structured, ages like fine Pinot Noir
<b>Fleurie – La Madone / Poncié</b>	Fleurie — pink granite, east-facing slopes	Clos de la Roilette, Julien Sunier, Domaine de la Grand'Cour	The most floral and elegant cru; silky, perfumed, quintessentially Beaujolais
<b>Côte de Brouilly</b>	Côte de Brouilly — blue diorite (volcanic), steep slopes of Mont Brouilly	Château Thivin, Laurent Martray	Volcanic blue stone gives mineral intensity; the most terroir-expressive of the southern crus
<b>Chénas – Les Caves / Quarts</b>	Chénas — granite/schist, sheltered valley between Moulin-à-Vent and Juliéas	Domaine des Vieilles Caves, Daniel Bouland	The smallest and least-known cru; serious, earthy, structured — an insider's favourite
<b>Juliéas – Les Capitans</b>	Juliéas — granite/schist/volcanic, north of Moulin-à-Vent	Domaine des Vignes du Maynes, Château de Juliéas	Firm, dark-fruited, with more structure than its reputation suggests; excellent ageability
<b>Saint-Amour</b>	Saint-Amour — granite/clay, northernmost cru	Domaine des Ducs, Château de Saint-Amour	Charming, lighter-bodied, floral; the most immediately seductive cru
<b>Régnié</b>	Régnié — pink granite/sand, gentle slopes	Domaine de la Gérarde, Ch. de la Pierre	Sandy soils produce light, fragrant, fruit-forward Gamay; the cru of pure drinkability
<b>Chiroubles</b>	Chiroubles — granite, highest altitude cru (250–450m)	Domaine de la Combe au Loup, Mée Godard	The highest and coolest cru; violet-scented, delicate, with vibrant acidity from altitude
<b>Brouilly</b>	Brouilly — granite/sand, gentle slopes around Mont Brouilly	Jean-Claude Lapalu, Château de la Chaize	The largest cru; generous, round, fruit-driven — the accessible gateway to cru Beaujolais
<b>Morgon Corcelette</b>	Morgon — volcanic schist, specific lieu-dit within Morgon	Mée Godard, Lapiere	A rising sub-cru within Morgon; mineral, structured, increasingly bottled as a single vineyard

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Auvergne (Gamay d'Auvergne)</b>	Auvergne — volcanic basalt/pumice, 400–500m altitude	Domaine Miolanne, Pierre Beauger, Yvan Bernard	France's volcanic Gamay frontier; raw, mineral, smoky — Gamay on lava with real terroir identity

## XVII. Sauvignon Blanc

Sauvignon Blanc's reputation suffers, unfairly, from its own ubiquity. The grape that at industrial scale gives Marlborough its pungent, passionfruit-driven house style is also the grape that, on the Kimmeridgian marl of Chavignol or the flint of Saint-Andelain, produces some of the most precise, mineral-driven, and age-worthy white wines in France. What unites the great sites is a particular kind of terroir legibility: Sauvignon Blanc, more than almost any other white grape, carries its soil directly into the glass. Limestone gives cut and citrus; flint gives smoke and tension; chalk gives weightlessness. In Sancerre and Pouilly-Fumé, the Loire's upper reaches, the hierarchy of named slopes is unofficial — no Grand Cru system exists here — but is nonetheless as well-understood by growers as any classified system in France. Beyond the Loire, Bordeaux's gravel terraces in Pessac-Léognan, the calcareous marl of Austria's Südsteiermark, and the hillside plantings of Marlborough's Southern Valleys constitute the grape's other major poles of quality.

### Loire Valley — Sancerre & Pouilly-Fumé

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Les Monts Damnés</b>	Chavignol, Sancerre — Kimmeridgian marl (terres blanches), near-vertical south/southwest-facing slope, 45° gradient	François Cotat, Henri Bourgeois, Vacheron, Thomas-Labaille	Sancerre's unofficial grand cru; depth, power, and ageing potential rare for the appellation, with a signature blend of citrus, smoke, and oyster-shell minerality
<b>Le Cul de Beaujeu</b>	Chavignol, Sancerre — Kimmeridgian marl, north/northwest-facing, cooler than Monts Damnés	François Cotat, Thomas-Labaille	The cooler counterpart to Monts Damnés; more taut, with cool white fruit, stony persistence, and a slower-developing complexity
<b>La Grande Côte</b>	Chavignol, Sancerre — Kimmeridgian marl/limestone, south-facing, the longest continuous slope in Chavignol	François Cotat, Pascal Cotat	Richer and more generous than Monts Damnés; silken texture with lingering savoury depth
<b>Le Chêne Marchand</b>	Bué, Sancerre — caillottes (small Oxfordian limestone pebbles), south/southeast-facing	Vacheron, Vincent Pinard, Paul Prieur	The most mineral-driven Sancerre site; caillottes give electric cut, lime zest, and crystalline tension
<b>Les Romains</b>	Bué, Sancerre — caillottes over Kimmeridgian marl, south-facing	Vincent Pinard, Pascal Jolivet	A Bué neighbour of Chêne Marchand; slightly rounder but with comparable mineral drive
<b>Silex</b>	Saint-Andelain, Pouilly-Fumé — flint (silex) over clay, gently sloping plateau	Didier Dagueneau, Serge Dagueneau	The archetypal flinty Pouilly-Fumé; gun-smoke aromatics, wet-stone cut, and extraordinary longevity on the right vintages
<b>Les Loges / Pur Sang</b>	Saint-Andelain / Les Loges, Pouilly-Fumé — mixed Kimmeridgian marl and flint, south-facing	Didier Dagueneau (Pur Sang), Alexandre Bain	A more textural Pouilly-Fumé than Silex; marries flint's smoke with marl's breadth

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Les Bascoins (Buisson Renard)</b>	Saint-Andelain, Pouilly-Fumé — flint/clay, sheltered	Didier Dagueneau (Buisson Renard)	Tight, spiced, nervous; Dagueneau's most introverted cuvée and among the most terroir-specific in the appellation

## Bordeaux — Pessac-Léognan blanc

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Château Haut-Brion Blanc</b>	Pessac-Léognan — deep Gūnzian gravel over clay, warm urban microclimate	Domaine Clarence Dillon (Haut-Brion, La Mission Haut-Brion)	The benchmark for barrel-fermented Sauvignon/Sémillon blends; waxy, smoky, with Yquem-like cellaring potential
<b>Domaine de Chevalier</b>	Léognan — gravel over clay, sheltered in the Landes pine forest	Domaine de Chevalier	The most elegant of the great Pessac-Léognan whites; linear, chalky, with pronounced citrus lift and thirty-year ageing
<b>Smith Haut Lafitte (white parcels)</b>	Martillac — Gūnzian gravel over clay	Smith Haut Lafitte	Modern, polished, with generous fruit over gravel-driven structure

## Austria — Südsteiermark

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Ried Zieregg</b>	Leutschach, Südsteiermark — opok (calcareous marl) over sandstone, steep south-facing, 400m+ elevation	Weingut Tement	Austria's single greatest Sauvignon Blanc site; dense, chalky, savoury, with Burgundian depth and remarkable longevity
<b>Ried Grassnitzberg</b>	Gamlitz, Südsteiermark — calcareous marl/sandstone, south-facing	Sattlerhof, Tement	Concentrated, exotic, with pronounced yellow-stone-fruit character over mineral tension
<b>Ried Sulz</b>	Gamlitz, Südsteiermark — sandstone/marl, cooler microclimate	Sattlerhof, Erwin Sabathi	The cooler counterpart to Grassnitzberg; more nervous, with elderflower and chalky finish

## New World

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Southern Valleys</b>	Marlborough, New Zealand — clay-rich hillsides, Awatere-influenced cool temperatures	Dog Point, Greywacke, Cloudy Bay (Te Koko parcels), Seresin	The antidote to valley-floor Marlborough; hillside clay produces structured, textural Sauvignon with real ageing potential
<b>Awatere Valley</b>	Marlborough, New Zealand — stonier soils, cooler, windier than the Wairau	Villa Maria (Taylors Pass), Yealands, Vavasour	Tighter, more saline, and more herbaceous than Wairau Valley Sauvignon; the most "European" Marlborough style

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Casablanca Valley hillsides</b>	Casablanca, Chile — granitic/clay slopes, coastal fog influence	Casas del Bosque, Matetic (EQ), Kingston Family	Chile's most serious Sauvignon terroir; cold-night acidity and herbal lift over granite-driven structure

*Note: Marlborough's valley floor — where the overwhelming majority of New Zealand Sauvignon Blanc is grown — is deliberately omitted here. The hillside plantings of the Southern Valleys and Awatere represent the region's site-driven top tier rather than its commercial base.*

## XVIII. Alsace Grands Crus — Gewürztraminer & Pinot Gris

Alsace is an anomaly: a French region whose terroir hierarchy is formally classified (51 Grands Crus since 1975), yet whose wines carry the grape name on the label in the German manner rather than the site name in the French manner. For Riesling, which appears in Chapter I, the Grand Cru system maps cleanly onto recognised quality. For the two other noble Alsace grapes — Gewürztraminer and Pinot Gris — the hierarchy is less fully exploited by growers but no less real. Gewürztraminer, with its lychee-and-rose aromatic profile, can turn blowsy on the wrong site and magisterial on the right one; Hengst's calcareous conglomerate and Goldert's oolitic limestone are two of the very few terroirs in the world where the grape achieves real structure and restraint. Pinot Gris, so often forgettable in its Italian Grigio guise, here produces wines of extraordinary weight and spice — particularly on the marl-and-gypsum of Clos Jebstal or the volcanic tuff of Rangen. Several of the sites listed below appear in the Riesling chapter as well; the Alsace Grands Crus reward all three noble grapes, though rarely equally.

### Volcanic & Mountain Terroirs

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Rangen de Thann — Clos Saint-Urbain</b>	Thann, Alsace — volcanic tuff, steepest Alsace GC, south-facing, extreme slope	Zind-Humbrecht (monopole), Schoffit	The most singular terroir in Alsace; volcanic intensity gives Gewürztraminer and Pinot Gris smoky, mineral, almost Etna-like depth
<b>Kastelberg</b>	Andlau, Alsace — blue Steige schist, steepest slope in the Bas-Rhin	Marc Kreydenweiss (Riesling-dominant, Pinot Gris notable)	Schist gives a flinty, austere edge to Pinot Gris; tight, mineral, ageable

### Calcareous & Limestone Terroirs

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Hengst</b>	Wintzenheim, Alsace — calcareous conglomerate/marl, south-southeast facing	Josmeyer, Albert Mann, Barmès-Buecher, Zind-Humbrecht	Arguably the greatest Gewürztraminer terroir in Alsace; structured, powerful, with extraordinary longevity and savoury depth
<b>Goldert</b>	Guebreschwihr, Alsace — oolitic Jurassic limestone, south-facing	Zind-Humbrecht, Ernest Burn	The classic Gewürztraminer site; the name ("golden gate") describes exactly the colour and aromatic generosity the terroir delivers
<b>Furstentum</b>	Kientzheim / Sigolsheim, Alsace — limestone/marl over schist, steep south-facing	Weinbach, Albert Mann, Paul Blanck	Warm, concentrated site; produces opulent Gewürztraminer and powerful late-harvest Pinot Gris

### Marl, Clay & Sandstone Terroirs

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Sporen</b>	Riquewihr, Alsace — heavy marl/clay, south-facing	Hugel, Dopff au Moulin	The most opulent Alsace Grand Cru for Gewürztraminer; rich, spicy, late-ripening, ideal for Vendanges Tardives
<b>Kessler</b>	Guebwiller, Alsace — red sandstone, warm microclimate, south-facing	Dirler-Cadé, Domaines Schlumberger	Sandstone retains heat; Gewürztraminer here is rich and perfumed with distinctive mineral backbone
<b>Clos Jepsal</b>	Turckheim, Alsace — grey marl and gypsum, south-facing, Zind-Humbrecht monopole	Zind-Humbrecht (monopole)	The reference Pinot Gris terroir; marl-and-gypsum produces wines of enormous weight, spice, and botrytis affinity
<b>Rotenberg</b>	Wintzenheim, Alsace — iron-rich red clay/marl over limestone	Albert Mann, Barmès-Buecher	A Pinot Gris specialist site; iron in the soil gives the wines a distinctive smoky, savoury note

*Note: Rangen de Thann and Kastelberg appear in the Riesling chapter; the Clos Saint-Urbain monopole is called out separately here because its Gewürztraminer and Pinot Gris are as celebrated as its Riesling. Several Alsace Grands Crus not listed here (Schlossberg, Brand, Kitterlé) are primarily Riesling sites.*

## XIX. Champagne Grands Crus

Champagne's 1985 échelle des crus classification rates each of the region's 319 villages on a 100-point scale; 17 villages score 100 and are designated Grand Cru. The classification is villages-not-vineyards, a single appellation-wide generalisation rather than a parcel-by-parcel hierarchy of the Burgundian kind — but within the Grand Cru villages themselves, a parcel-level terroir culture has flourished, particularly since the rise of grower-Champagne in the 1990s. The chalk subsoil, present throughout the region, takes different forms across the three main sub-districts: the deep Craie de Belemnites under the Côte des Blancs produces the region's finest Chardonnay; the colder, often shallower chalk of the Montagne de Reims favours Pinot Noir; and the Vallée de la Marne's clay-and-chalk mix is the historic home of Pinot Meunier. The named single-vineyard clos — Krug's Clos du Mesnil, Philipponnat's Clos des Goisses — sit atop this hierarchy, producing Champagnes that rival white Burgundy's Grands Crus for structure and longevity.

### Côte des Blancs — Chardonnay Grand Cru Villages

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Le Mesnil-sur-Oger</b>	Côte des Blancs — pure Craie de Belemnites chalk, east-facing slope	Salon, Krug (Clos du Mesnil), Pierre Péters, Guy Charlemagne	The Montrachet of Champagne; bone-dry, saline, laser-precise Chardonnay capable of decades in cellar
<b>Cramant</b>	Côte des Blancs — deep chalk, east-facing gentle slope	Diebolt-Vallois, Mumm (Grand Cru), De Sousa	The broadest, creamiest Côte des Blancs village; generous stone fruit over chalky foundation
<b>Avize</b>	Côte des Blancs — chalk, east-facing, slightly warmer than Cramant	Anselme Selosse, Agrapart, Jacquesson (Avize Champ Caïn)	The engine room of grower Champagne; Selosse's base of operations and the site with the most intense chalky drive
<b>Oger</b>	Côte des Blancs — chalk, east-facing, between Avize and Le Mesnil	J.L. Vergnon, Larmandier-Bernier, Milan	Often overshadowed by neighbours but produces Chardonnay of remarkable elegance and floral complexity
<b>Chouilly</b>	Côte des Blancs (north) — chalk, gentler slopes, warmer	Legras, Vazart-Coquart, Pierre Gimonet	Northern Côte des Blancs warmth; rounder, more immediately charming Chardonnay

### Montagne de Reims — Pinot Noir Grand Cru Villages

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Aÿ</b>	Montagne de Reims / Grande Vallée — chalk with clay, steep south-facing	Bollinger (Vieilles Vignes Françaises), Deutz, Henriot, Gatinois	Champagne's most storied Pinot Noir village; structured, powerful, with ungrafted vines at Bollinger that produce one of the region's rarest wines
<b>Bouzy</b>	Montagne de Reims (south face) — chalk with clay, south-facing	Paul Bara, Egly-Ouriel, Georges Vesselle	The most muscular Pinot Noir Champagne village; dense, spicy, fruit-driven

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Ambonnay</b>	Montagne de Reims (south face) — chalk, south-southeast-facing	Egly-Ouriet, Marie-Noëlle Ledru, Krug (Clos d'Ambonnay)	Neighbour of Bouzy with marginally more finesse; home to Krug's rarest single-vineyard cuvée
<b>Verzenay</b>	Montagne de Reims (north face) — chalk, cold north-facing slope	Louis Roederer (Cristal sources), Alfred Gratien, Michel Arnould	The cold, chalky north face; tight, acidic, mineral Pinot Noir; a foundational component of Cristal and many top grande marque tête de cuvées
<b>Verzy</b>	Montagne de Reims (north face) — chalk, cold north-facing	Maurice Vesselle, Juillet-Lallement, Étienne Lefèvre	Verzenay's quieter neighbour; structured, slow-developing Pinot Noir
<b>Mailly-Champagne</b>	Montagne de Reims (north face) — chalk, north-facing	Mailly Grand Cru (cooperative), Paul Bara	Home to one of Champagne's most respected cooperatives; structured, precise Pinot Noir

### Named Clos & Single-Vineyard Sites

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Clos du Mesnil</b>	Le Mesnil-sur-Oger — walled 1.87ha Chardonnay clos, chalk, Krug monopole	Krug	The Romanée-Conti of Champagne; a single walled parcel producing one of the most expensive and compelling wines in the world
<b>Clos d'Ambonnay</b>	Ambonnay — walled 0.68ha Pinot Noir clos, chalk, Krug monopole	Krug	Krug's other monopole; Pinot Noir-only, impossibly rare, release prices approach those of DRC
<b>Clos des Goisses</b>	Mareuil-sur-Aÿ — steep 5.5ha south-facing chalk slope, Philipponnat monopole	Philipponnat	The steepest single vineyard in Champagne; ripens earlier than any other and produces the region's most powerful, long-lived vintage cuvée
<b>Clos Saint-Hilaire</b>	Mareuil-sur-Aÿ — 1ha Pinot Noir clos, chalk/clay, Billecart-Salmon monopole	Billecart-Salmon	A late addition to the monopole tradition (first release 1998); Pinot Noir of remarkable depth and fineness

*Note: The 17 Grand Cru villages are all represented in the Champagne appellation's 100-point échelle, but only the most wine-critical are listed here. Villages like Beaumont-sur-Vesle, Louvois, Puisieulx, Sillery, Tours-sur-Marne (left bank), and Chouilly produce Grand Cru wine but rarely drive individual-vineyard attention.*

## XX. Volcanic Terroirs

Volcanic soils are unusual enough in the wine world that they deserve cross-variety consideration. Etna's Nerello Mascalese, Santorini's Assyrtiko, Tenerife's Listán Negro, and Pico's Verdelho are all grape-specific — but the common factor is the soil, not the grape. Volcanic terroirs tend to produce wines of distinctive character: high acidity, smoky or ashy aromatics, fine-grained tannins in reds, and a kind of saline-mineral drive that is hard to replicate elsewhere. The better volcanic sites also tend to preserve old vines; phylloxera struggles in sandy volcanic substrates, and many of the world's remaining pre-phylloxera ungrafted plantings survive on volcanic islands. Etna's *contrada* system — a Burgundy-style parcellation of named sites on the mountain's slopes — has been the most important recent development, formalising a terroir hierarchy that growers had long recognised informally.

### Etna — Contrade (Nerello Mascalese)

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Contrada Guardiola</b>	Etna Nord (Passopisciaro) — black volcanic ash and lapilli, 800–1,000m elevation	Passopisciaro, Graci, Girolamo Russo	The highest commercial Etna <i>contrada</i> ; cold nights, crystalline acidity, and an ethereal perfume recalling Pinot Noir
<b>Contrada Calderara Sottana</b>	Etna Nord (Randazzo) — ancient lava flows, iron-rich volcanic sand, 700m	Benanti, Tenuta delle Terre Nere	Richer, more textural than Guardiola; warm southern slopes of northern Etna, producing structured Nerello Mascalese
<b>Contrada Feudo di Mezzo</b>	Etna Nord (Passopisciaro) — mixed volcanic sand and ash, 650–750m	Passopisciaro, Tenuta delle Terre Nere	A broad <i>contrada</i> with varied soils; the mid-slope engine room of Etna Nord
<b>Contrada Rampante</b>	Etna Nord (Passopisciaro) — young lava and ash, 900m+	Passopisciaro	One of the highest named sites; laser-like, crystalline, tensile Nerello
<b>Contrada Porcaria</b>	Etna Nord (Solicchiata) — older lava flows, dense volcanic clay, 750m	Giuseppe Russo, I Vigneri, Graci	Dense, mineral, age-worthy; the deepest soils on Etna's northern slope
<b>Contrada Barbabecchi</b>	Etna Nord (Solicchiata) — black volcanic sand, pre-phylloxera vines, 900m+	Graci, I Vigneri (Salvo Foti)	Among the last surviving pre-phylloxera Nerello vineyards; the link to Etna's pre-modern past

### Santorini — Assyrtiko on Volcanic Ash

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Santorini old-vine kouloura plots</b>	Santorini, Greece — pumice/volcanic ash ( <i>aspa</i> ), ungrafted pre-phylloxera vines, basket-trained	Domaine Sigalas, Estate Argyros, Gaia Wines, Hatzidakis	The most extreme white-wine terroir in the Mediterranean; wines of saline, smoky, high-acid intensity with a signature cave-aged minerality

### Canary Islands — Listán Negro, Listán Blanco & Malvasía

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Tenerife — Valle de la Orotava</b>	Tenerife, Canary Islands — volcanic ash/pumice, ungrafted vines on braided cordón trenzado	Suertes del Marqués, Envínate (Taganan), Borja Pérez	Wild, rustic, yet ethereal reds and whites; the braided vine training is unique in the wine world
<b>Tenerife — Ycoden-Daute-Isora</b>	Tenerife (northwest) — young volcanic soils, coastal-influenced	Envínate (Benje), Viñátigo	Cooler, wind-moderated slopes producing Listán Negro of striking freshness and herbal complexity
<b>Lanzarote</b>	Lanzarote — black volcanic ash pits (zocos), single vines in volcanic hollows	Bodegas Los Bermejos, El Grifo	Among the most visually extraordinary vineyards in the world; dry-farmed Malvasía on pure volcanic ash

## Azores & Portugal — Verdelho & Arinto

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Pico — Lajido walled vineyards</b>	Pico Island, Azores — black basalt currais walls, UNESCO World Heritage	Azores Wine Company, Insula Vinhos	A landscape of low stone walls sheltering vines from Atlantic winds; producing saline, smoky Verdelho unlike any other

## France — Auvergne & Ardèche

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Auvergne — Côtes de Clermont &amp; Boudes</b>	Auvergne, France — basalt, pumice, volcanic conglomerate, 400–500m	Pierre Beauger, Vincent Marie, Patrick Bouju	France's great volcanic frontier; Gamay d'Auvergne on lava with raw, smoky, mineral intensity

*Note: Several volcanic sites appear in other chapters: Rangen de Thann (Alsace, volcanic tuff) is in the Riesling and Alsace Grands Crus chapters; Soave Classico's volcanic slopes and Côte-Rôtie's mica schist have volcanic origins but are treated regionally. The sites here are included because volcanic origin is their primary terroir identity.*

## XXI. Corvina & Veneto Reds — Valpolicella & Amarone

Amarone della Valpolicella is one of the few genuinely original Italian wine styles — a passito red made from air-dried Corvina, Rondinella, and occasionally Molinara, with a concentration, alcohol, and sweetness profile that has no close parallel elsewhere. The wine's modern form dates only to the 1950s, but the appassimento drying technique is ancient, and the named hillsides of the Valpolicella Classica — the original five valleys of Fumane, Marano, Negrar, San Pietro in Cariano, and Sant'Ambrogio — constitute a terroir hierarchy formalised only in 2019 with the MGA (Menzioni Geografiche Aggiuntive) system. The geological mix of marine limestone, basalt from ancient volcanism, and alluvial clays produces wines of remarkable complexity. The best modern Amarone (Quintarelli, Dal Forno, Giuseppe Quintarelli's disciples) rivals Bordeaux's first growths for longevity and rewards the same kind of patient cellaring.

### Valpolicella Classica — Fumane & Marano Valleys

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>La Poja</b>	Fumane, Valpolicella Classica — limestone hilltop monopole, 320m	Allegrini (monopole)	A rare 100% Corvina bottling on an isolated hilltop; among the most structured and age-worthy Veneto reds
<b>Monte Sant'Urbano</b>	Fumane, Valpolicella Classica — limestone/basalt, south-facing slopes	Speri (monopole)	Speri's flagship Amarone cru; classical Valpolicella Classica style with unusual refinement
<b>Campolongo di Torbe</b>	Negrar, Valpolicella Classica — chalky marl, south-facing historic cru	Masi (monopole-like), Novaia	One of the oldest recognised Valpolicella crus; traditionally the source of the longest-lived Amarone
<b>Vigneto Mazzano</b>	Negrar, Valpolicella Classica — limestone, high altitude, small-berried Corvina	Masi	Masi's single-vineyard Amarone; small berries concentrate acidity, producing unusually tensile appassimento wine
<b>Monte Ca' Bianca</b>	Marano, Valpolicella Classica — volcanic basalt over limestone, 450m	Lorenzo Begali, Novaia	Volcanic influence adds smoky, mineral drive rare in Valpolicella

### Eastern Valpolicella — Illasi & Mezzane Valleys

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Vigneto di Monte Lodoletta</b>	Cellore d'Illasi, Valpolicella — volcanic basalt/alluvial, high-density plantings	Dal Forno Romano	The most influential modern Valpolicella cru; Dal Forno's obsessive viticulture (12,000+ vines per hectare) redefined Amarone's ambitions
<b>Val d'Illasi — Quintarelli estate</b>	Negrar (border with Illasi) — limestone/clay, 400m	Giuseppe Quintarelli	The most mythologised Amarone estate; traditional methods, multi-decade ageing, legendary rarity

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Mezzane Valley high slopes</b>	Mezzane di Sotto — limestone with volcanic inclusions	Corte Sant'Alda	The cooler, more mineral end of Valpolicella; age-worthy Amarone with unusual freshness

## Recioto & Dessert-Style Veneto

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Recioto della Valpolicella — Classica slopes</b>	Fumane / Negrar / Marano — same slopes as Amarone, selected higher-sugar bunches	Masi (Mezzanella), Quintarelli, Allegrini	The ancient sweet ancestor of Amarone; passito method taken further, producing intensely sweet but age-worthy wines

*Note: Soave Classico (Garganega on volcanic basalt) is a parallel Veneto terroir tradition not covered here; it belongs with the volcanic chapter or a future white-wine expansion. Bardolino and Valpolicella's eastern lowland zones produce lighter, more modestly-ambitious wines and are not included.*

## XXII. Varietal Merlot — Beyond Pomerol & Saint-Émilion

Merlot as a standalone variety — rather than as a supporting player in a Bordeaux blend — has had an uneven global career. The grape's natural generosity and early-drinking appeal made it commercially successful and then, in the 2000s, deeply unfashionable. But a small number of producers have used Merlot's exceptional compatibility with clay soils to make 100% varietal wines of real seriousness. Tuscan producers, starting with Ornellaia's Masseto in the mid-1980s, demonstrated that Merlot on the blue clay of Bolgheri could produce wines rivalling the finest Right Bank Bordeaux. Castello di Ama's l'Apparita in Chianti Classico proved the same on galestro at altitude. In California, Duckhorn's Three Palms and a handful of benchland Napa sites have made the case for New World varietal Merlot. What these sites share is clay — ideally iron-rich, structured clay, the soil that defines Pomerol — and the growing consensus that Merlot is among the most site-transparent, not least-transparent, of the Bordeaux varieties.

### Tuscany — Bolgheri & Chianti Classico

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Masseto</b>	Bolgheri, Tuscany — blue clay hilltop, the 'Italian Pétrus', 120m	Tenuta dell'Ornellaia (monopole)	The world's most celebrated non-Bordeaux varietal Merlot; dense, structured, profoundly long-lived
<b>L'Apparita</b>	Gaiole in Chianti, Tuscany — galestro/alberese at 450m, isolated parcel	Castello di Ama	Single-vineyard Merlot at altitude; elegance and aromatic complexity rare for the variety at warm latitudes
<b>Messorio</b>	Bolgheri, Tuscany — alluvial clay with limestone, south-facing	Le Macchiole	A more muscular Bolgheri Merlot than Masseto; dark, concentrated, with iron-rich clay signature
<b>Redigaffi</b>	Suvereto, Maremma, Tuscany — clay over schist, coastal-influenced	Tua Rita	Among the first Tuscan varietal Merlots to earn 100-point scores; ripe, generous, dense
<b>Tenuta di Trinoro — Merlot parcels</b>	Sarteano, Val d'Orcia, Tuscany — galestro at 500m, warm days/cold nights	Tenuta di Trinoro (Andrea Franchetti)	High-altitude, low-yielding Merlot in an unusually cool Tuscan microclimate; intense, structured, mineral

### Napa Valley — Benchland & Alluvial Sites

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Three Palms Vineyard</b>	Calistoga, Napa Valley — alluvial gravel and cobblestone fan, warm northern Napa	Duckhorn, Schweiger	The most famous varietal Merlot vineyard in California; the warmth and stone-rich drainage give structure unusual for Napa Merlot
<b>Shafer Hillside Select Merlot blocks</b>	Stags Leap District, Napa — volcanic/alluvial, sheltered Palisades	Shafer Vineyards	Merlot as a component of Hillside Select and the estate's standalone bottling; benchmark Stags Leap silkiness

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Pahlmeyer Merlot estate</b>	Atlas Peak / Coombsville area, Napa — volcanic/alluvial	Pahlmeyer	Rich, ripe, powerful Napa Merlot in the early-1990s Helen Turley style

## Washington State & Beyond

Vineyard / Site	Region & Terroir	Key Producers	Signature Character
<b>Horse Heaven Hills — Canoe Ridge</b>	Columbia Valley, Washington — loess over basalt, windy ridge above the Columbia River	Quilceda Creek (Galitzine), Long Shadows (Pedestal)	Among the most serious varietal Merlot produced outside Europe; basalt adds a mineral edge absent from Napa equivalents
<b>Stellenbosch — Helderberg Merlot</b>	Stellenbosch, South Africa — decomposed granite over clay, maritime	Thelema, Ernie Els, Waterford	South Africa's most convincing varietal Merlot region; structured, Bordelais-style wines

*Note: The Merlot of Pomerol (Pétrus, Le Pin, Lafleur) and Saint-Émilion is covered under Bordeaux Blends in Chapter IV; these are technically varietal or near-varietal Merlot but are conventionally treated within their Bordeaux context. The sites above are those that make Merlot the named grape on the label.*

## Notes

This compendium covers twenty-two grape varieties and blend categories, encompassing approximately 300 vineyard sites across more than 25 countries. Together, they represent the most widely celebrated terroir hierarchies in world wine.

**Editorial criteria.** Sites qualify for inclusion based on established critical consensus — the presence in published hierarchies (VDP Grosse Lage, Alsace Grand Cru, Champagne échelle des crus, Côte d'Or climats, Saint-Émilion classification), sustained high scores from major critics, and reputation among the producers and buyers who specialise in each region. The Atlas is not a complete inventory of every distinguished vineyard; it aims to cover the sites that carry the most weight in informed conversation about each grape.

**Further additions under consideration.** Topics being weighed for inclusion in future revisions: Mourvèdre (Bandol, Jumilla, old-vine Barossa); Viognier (Condrieu, Eden Valley, Virginia); Sémillon (Hunter Valley, Sauternes, Pessac-Léognan blanc blends); and a dedicated chapter on sweet wines of noble rot (Sauternes, Tokaji, Beerenauslese).

Vineyard sites, producer associations, and terroir descriptions are based on established consensus as of early 2026. Classifications evolve; treat this document as a living reference.