

Clark Smith

POSTMODERN WINEMAKING: RE-THINKING THE MODERN SCIENCE OF AN ANCIENT
CRAFT

University of California Press

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Jamie Goode

WINE SCIENCE: THE APPLICATION OF SCIENCE IN WINEMAKING

2nd edition. Mitchell Beazley

216 pp. £30.00

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Charles Frankel

LAND AND WINE: THE FRENCH TERROIR

University of Chicago Press

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By

Tim Crane

Wine is not a solution, Clark Smith tells us; in fact, it's not even a liquid. Allowing a pinch of salt for exaggeration, his point is that if we assume a wine is essentially a solution, then filtering, which removes inessential undissolved solids, should reveal its essence. On Smith's view, this assumption epitomises everything that is wrong with modern winemaking. The solids suspended but not dissolved in the wine — the tannins and other large molecules or colloids — are what give

character to wines, what make them develop complex flavours that change and (hopefully) improve over time. This is why wine is not really a solution: it is more like an emulsion, a sauce or a soup, one that can take decades to achieve perfection. Wine is, in one of Smith's favourite phrases, the "ultimate slow food".

Smith's "postmodern" approach to winemaking has little or nothing to do with the ideas of philosophers like Jacques Derrida or Jean-François Lyotard: explaining how the elements of a wine affect its taste is not a kind of deconstruction. The title of his book has a simpler etymology: it's the winemaking that should come after modern winemaking. The modern era in winemaking began a few decades ago with the widespread adoption of certain crucial technologies: using refrigeration to control fermentation in stainless-steel tanks, covering wine with blankets of inert gas to create a reductive (i.e. oxygen-free) environment, the systematic use of preservatives and rigorous hygiene in the winery. These things, together with increased use of new oak for flavour, and more efficient filtering and fining (i.e. the use of egg white or fish bladders to clarify wines) have had a revolutionary effect on the style and quality of the world's wines. As the effects of this technology spread throughout the world, undrinkable wine started to disappear. Anyone who remembers drinking cheap wines from the 1970s or 80s will know what this meant: thin, sour, bitter, grubby stuff only useful for intoxication. In most wine-consuming parts of the world, it is hard to find wines like this any more. Clean, fruity, smooth and high-alcohol wines are everywhere from our supermarkets to the most glitzy restaurants. In this sense, then, there has never been a better time to drink wine.

But there is a fundamental problem with today's wine: it is boring. Most wines sold in UK supermarkets (where the vast majority of wines in this country are bought) are easy to drink and totally unmemorable. Those who have experienced real greatness in wine will continue to search for that moment of greatness again, like the beatific vision of Christian theology. The Californian winemaker and consultant Clark Smith is one of them. His utterly brilliant *Postmodern Winemaking* is a passionate plea to stop the rot of bland, fruity and over-alcoholic wine from destroying the wisdom of ages which created the greatest wines of the world. The book derives from Smith's column in *Wines and Vines* magazine and inevitably contains repetition, as any book with such an

origin will. But his style is so engaging — a few take-home messages after every chapter, genuinely apposite literary references, and even some good jokes — that this doesn't really matter.

Smith's proposed remedy for the malady of boring wine does actually have a loose connection to philosophical postmodernism, insofar as it recommends eclecticism: there should be no overarching principles or big theories. (In *The Postmodern Condition*, Lyotard characterised postmodernism in terms of the failure of "metanarratives", and lamented that even our eclectic eating habits reveal how our "epoch is one of slackening".) Smith's particular eclecticism is a result of trying to recover what has been lost in the huge stainless-steel vats of international "petrochemical" winemaking. But it is not about slavish devotion to biodynamic, organic or "natural" winemaking methods, nor to the cult of "terroir", the sense of place which is supposed to be the key to distinctiveness in wine. The main theme of Smith's book is that all these approaches and ideas have merits, but they must all be put at the service of good oenological sense (rather like George Orwell's rules for good writing, governed by the overarching rule: "break any of these rules sooner than say anything outright barbarous"). In particular, biodynamic winemaking, the method deriving from the eccentric agricultural theories of Rudolf Steiner, gets high praise from Smith.

Steiner was undoubtedly a crank, and his "spiritual foundation for the renewal of agriculture" has little intelligible basis in biology or chemistry. Biodynamic winemakers are required to bury a horn filled with cow dung in their vineyard during the winter, remove the dung and spray it on the soil. Other compost preparations are put in animals' skulls and buried, then removed and applied to the vines. The compost makes perfect sense, but why the horns and the skulls? In the second edition of his award-winning *Wine Science*, Jamie Goode makes an honest attempt to reconcile modern science with biodynamic methods by "stripping biodynamics down into its component parts" (in itself a rather non-holistic and non-Steinerian approach). A trained chemist, Goode points out that the biodynamic approach tends to increase the quality of the soil (e.g. its microbial diversity) and the fruit yielded, but he finds no scientific basis for its more holistic pronouncements about "life forces".

However, just as Steiner's Waldorf schools have produced well-educated children, so biodynamic winemakers have produced outstanding wines. In fact, many of the greatest

winemakers in the world are now biodynamic, including the Domaine de la Romanée Conti and Comtes Lafon in Burgundy, and Zind Humbrecht in Alsace. There is an interesting lesson here: it doesn't matter if the science is not rigorous by the standards of contemporary physics and chemistry, what matters is that the winemaker cares about every stage of the process. As Goode puts it, "as winegrowers adopt biodynamics, they are entering into a philosophical system that acts as a framework to help them maintain a careful approach in the vineyard". If biodynamics also involves a placebo, who cares when the results are so good?

So-called "natural" wine is a different matter, since in this case controversy rages about the quality of the product itself. Some writers love the cloudy, funky wines produced with as little intervention as possible, and hipster bars serving only natural wines are popping up all over London and Paris. But others see this as a backward step, the result of an ill-thought-out ideology whose products taste no better than fancy cider (at best).

One problem with discussions of natural wine, as Smith emphasises, is that there is no agreement on what "natural" means. This would not matter if natural wine were not such a cult. But since it is, its members fight to protect their purity; and as with any cult, there will always be those who attempt to be even more pure than the purest. But what does purity consist in? Natural winemakers' ambition is to add nothing to their wines — no sugar, no oak chips, no acid — but they struggle over the question of whether to add sulphur dioxide (SO₂), used almost universally to prevent unwanted oxidation and microbial development in the bottle, which destroy wine. Some add it, some don't. But once you've added SO₂, why not add some oak to soften the harsh tannin in a red wine? Smith's approach is that of the "artisan hero" with a "suspicion of theory": only use those techniques that work to produce interesting wines. Some natural wine zealots seem to be driven by more ideological motives.

Smith is particularly good on the idea that wine should not be manipulated. 40% of the wines of Bordeaux and Burgundy have sugar added in the winemaking process, and probably a higher percentage of wines in Champagne do too. In keeping with the obscurantism of traditional wine terminology, this is known as "chaptalization" after the French chemist and politician Jean-Antoine Chaptal who first proposed in 1801 that such "sugaring up" should be legitimate. But the

fact that so much French wine contains sugar is still not widely known, even among experienced wine drinkers. Smith remarks on the likely effect on the prestige and price of a Grand Cru Burgundy if its label were required to include the words “contains beet sugar”.

Goode takes a more nuanced and open-minded approach to natural wine. As well as being a great communicator — Goode is much better than Smith at explaining the underlying chemistry in simple terms — he is also an optimist about the future of winemaking. Goode argues that the existence of extreme natural winemakers who use very little or no SO₂ is a stimulus to all winemakers to consider their current practices in the move away from the “heroic” levels of SO₂ that “used to be applied in many parts of Europe”. Extremism can result in changes from which “everyone is likely to benefit”.

Organic, biodynamic and natural are ways of classifying methods of making wine. The French concept of “terroir” is different: it denotes the importance of place. Few things have been more debated in recent wine writing than terroir, but this is not because any serious winemaker disputes its existence. What they dispute is what terroir really means. The word does not just refer to the region where the wine is made; if so, its meaning would be easy to determine (Burgundy, Alsace...). Terroir is rather supposed to be the specific combination of geology, topography and climate which makes the wines of certain historic regions possible, and contributes to their distinctive character. Terroir is, in Goode’s nice phrase, “a partnership led by the soil and climate”. But how exactly do these factors contribute to the taste of a wine?

Charles Frankel’s *Land and Wine* is an attempt to answer this question. Taking the reader on a tour of twelve great French wine regions, Frankel describes the geological origins of the distinctive soil of beautiful places like Savennières, Corton and Bandol. Just as Goode’s background is in chemistry, so Frankel’s is in geology, and like Goode he gives lucid, nontechnical accounts of the scientific material, which he integrates well into the human histories of the regions. Surprisingly for the intended market, perhaps, the book is cheaply produced — the photos are grainy black and white, and the crude maps are a real missed opportunity for a highly illustratable subject-matter like this. Otherwise it is a perfect book for a wine nerd to take on a trip to France.

The central question about terroir is how the soil and the climate actually affect the taste of wine. Everyone agrees that they do; but the mechanisms are complex, involving many variables. In Savennières in the Loire Valley, for example, the vines grow in rocky soil where they have to push their roots down to search for water, picking up ions of magnesium and iron on the way. Frankel notes that “critics often recognise ‘exceptional mineral flavours’ in Savennières wine”. Alsace was once covered by a “shallow sea, with marine molluscs and plankton dropping their shells and outside skeletons on its limy bottom”. Is this why Alsatian wines are particularly good with seafood? Frankel holds back from saying so explicitly, but quotes one Alsatian winemaker who detects “whiffs of iodine, of seaweed, of beaches at low tide” in his wine, and then asks, almost rhetorically, “could it be the salts present in the soil that transmit to the wine this ghostly marine impression?”.

Well, maybe. Making a direct link between metal ions and mineral flavours, or between oyster fossils and marine flavours, might be tempting — until we start to think about what we mean when we call a wine “metallic” or “mineral”, and at what stage in the complex winemaking process these flavours are created. As Clark Smith hammers home, there is no such thing as unmanipulated wine; no wine is wholly natural. Of course, it matters where the grapes are grown. To give up this idea is to enter the terroir-free zones of E & J Gallo or Diageo’s Blossom Hill (the UK’s no.1 wine brand). But there are many steps between the soil and the glass; so many, in fact, that a Goode-like scientific scepticism is an appropriate response to some of the more extreme claims about terroir.