The O_2 arena

Tom Stevenson

Why do some people, including very many experienced and knowledgeable tasters, accept levels of oxidation in Champagne that they would totally reject in other wines?

I tackled this point in a new column for wine-searcher.com recently, and it caused quite a stir, not least from devotees of Anselme Selosse. I also had a pop at Bollinger for not using SO_2 at disgorgement, and at Giraud for his acetic, hugely expensive Argonne cuvée. The comments posted in response extended beyond wine-searcher to Facebook, Wineberzerkers, Wine-Pages, the *Mise en abyme* blog (mowse.blogspot.co.uk), and the Guild of Sommeliers website in the USA. Of course, some supported my views, and some did not.

On Wineberzerkers, Brad Baker, aka The Champagne Warrior, was not in total agreement, but he summed up my position fairly accurately when he wrote, "Tom is not a fan of oxidative notes in his wine or really any one flavor/aroma profile really standing out, he is much more a fan of classical, well integrated, balanced, smooth Champagne." I would have preferred Brad to write, "any *one winemaking process or fault* standing out," since aromas intrinsic to certain grape varieties certainly should stand out for typicity, but apart from that, Brad was spot on. Who would be a fan of oxidative, unbalanced wines that are coarse to one degree or another? A lot of people, it seems! I would be nitpicking to contradict Brad's assessments of most of the five overrated and five underrated producers I listed in my column (misleadingly titled by wine-searcher as "Overachievers & Underperformers") because our views are not that far apart, but I am still left puzzled by his attitude to oxidation in Champagne as "just a stylistic preference."

In one of the wine-searcher comments, Anthony Rose asked, "Tom, do you acknowledge that there's a big difference between oxidative and oxidized?" Indeed I do, but wine-searcher discourages its writers from replying to comments, so I was unable to say so at the time. For me, oxidative infers a detectable level of aldehyde, primarily acetaldehyde. Oxidized, on the other hand, indicates the completed process whereby the acetaldehyde has been converted into acetic acid and the wine has effectively become vinegar. That is why I try never to use oxidized, only oxidizing, volatile, or acetic. There are various degrees of oxidative and oxidizing aroma, so I suppose the crucial question is, Where does it stop being a stylistic preference and become a fault? For me, the answer is easy. If the aromas are not integrated and acetaldehyde or acetic acid pokes through, then it's technically a fault, though those who enjoy these chemical compounds obviously would not agree. They are entitled to their view, but so am I. If they want to eat a rotten cabbage, I am not going to say they should not eat a rotten cabbage, but I reserve the right to point out that the cabbage is rotten.

I have enjoyed Champagne that was just a hint oxidative, but I would have enjoyed it all the more without any aldehydic note. It might sound paradoxical, but it is possible to have a pristine oxidative style of Champagne because it is essentially a reductive wine. During the second fermentation, the yeasts suck up all of the oxygen, leaving the wine in a highly reductive environment until disgorgement, which might be several years later. However, the winemaking regime prior to bottling will determine whether it falls into one of two basic categories: reductive or oxidative. Typically the reductive style is fermented in stainless steel, whereas the oxidative style is fermented in wood, but it is possible to craft an oxidative style in stainless steel, if the wine is handled oxidatively. Classic examples of pristine oxidative Champagnes include any of the best cuvées of Krug or Alfred Gratien.

The weak link in the reductive chain is, of course, the oxidative shock of disgorgement. Research published in 2003 showed that 1.8–2.7mg/l of oxygen was introduced when the sediment was disgorged, the wine topped up, and the *dosage* added. This can increase to 4–5mg/l when "fall back" occurs, which is when the mousse fizzes up and sometimes over the top of the bottle, then collapses back down, drawing air into the head space. All Champagnes at this juncture are prone to oxidation, but the longer they have become used to their reductive environment on yeast, the more sensitive they are. This research led directly to the development of "jetting" technology, which has since been incorporated into the latest disgorging lines: with precise timing a micro-stream of water or liquid nitrogen is jetted into a Champagne bottle so that the mousse foams to the lip of the bottle, excluding all air from the bottle, at which precise moment the cork is inserted. With this simple technology, it is possible to keep SO_2 at the lowest necessary level and still eliminate aldehydic aromas, so even Champagnes that have been handled oxidatively can be pristine, if well made. However, if the wine is not properly protected, any Champagne can quickly develop aldehydic aromas.

I find it hard to understand why anyone would prefer an overtly oxidative Champagne—it is so old-fashioned. But even if I accept that some do, I have to ask why Champagne? Or do they also prefer oxidative Chablis, Mâcon, and Mosel Riesling? ■

Illustration by Dan Murrell, from an original photography by Jon Wyand